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The Role of Autonomy, Authenticity, and Context in a Hypothetical Dilemma: The Case of An Incarcerated Violent Criminal, and a New Way to 'Fix' her Brain

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Declaration

I declare that this thesis, which I submit to RCSI for examination in consideration of the award of a higher degree, MSc in Healthcare Ethics and Law, is my own personal effort. Where any of the content presented is the result of input or data from a related collaborative research programme this is duly acknowledged in the text such that it is possible to ascertain how much of the work is my own. I have not already obtained a degree in RCSI or elsewhere on the basis of this work. Furthermore, I took reasonable care to ensure that the work is original, and, to the best of my knowledge, does not breach copyright law, and has not been taken from other sources except where such work has been cited and acknowledged within the text.

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Contents

Abstract

This paper will first briefly touch on the history of psychopathy as a medical condition and the history of psychosurgery in the modern/scientific era. An alternative classification of the three personality anti-social disorders - psychopathy, sociopathy, and anti-social personality disorder (ASPD) - will be posited in the light of recent neurological and evolutionary based findings.

A current and popular ethical framework, principlism, will be employed as a guiding tool which may be appropriate to address the dilemma at the heart of the hypothetical case at hand. An alternative approach to resolution of the dilemma, namely the relational methodology, is then put forward for consideration. It is argued that the latter framework leads to a different conclusion, and that, given the more nuanced analysis it allows for, one which can be said to hold greater sway in efforts to resolve the dilemma at hand. It is found that, by considering the roles of autonomy, authenticity, and context, under the ethical framework of Relational Theory, there are stronger arguments in favour of allowing the incarcerated violent psychopath the option of brain alteration as an alternative to long-term incarceration than there are against withholding said option.

Introduction

"*I...apprehend and do attach thee*

For an abuser of the world, a practicer

Of arts inhibited and out of warrant."

(1.2.80-98) BRABANTIO on IAGO in Shakespeare's Othello

There have been multiple portrayals of psychopathic characters in the arts and cultures of societies, sometimes believable sometimes not, throughout the world, for time immemorial.

They are the ones who upset the applecart, sometimes spreading their antisocial message to vulnerable and frustrated groups. They are merciless, driven by material greed, self-interested hedonism, and a lack of compunction to impact negatively on the lives of others in pursuit of their goals. Unburdened by guilt and remorse, they can be puzzled by other people, who seem to laden themselves down with care and concern for others.

In the words of Ted Bundy who was convicted of killing thirty women in America in the 1970s:

"*I don't feel guilty for anything. I feel sorry for people who feel guilt*."(1)

He also said:

"I haven't blocked out the past. I wouldn't trade the person I am, or what I've done – or the people I've known – for anything...And at times it's a rather mellow trip to lay back and remember" (1)

Bundy was convicted of three murders, including that of a 12-year-old girl. He confessed to more than 30 in the 1970s. Before being executed he stated that:

"*I didn't know what made people want to be friends. I didn't know what made people attractive to one another. I didn't know what underlay social interactions.*" (1)

Throughout the scientific age conceptions of such a personality disorder could only be determined and assessed by interpreting behaviours and observing modes of interaction with others. This was because we cannot know what is in the mind of another; we can only surmise by observation and analysis of said observations – if, that is, we want our interpretations to be built from the foundations of evidence-based, scientifically validated findings.

However the rapid development of neuroimaging and neuro-therapy techniques in the last two decades has opened up new and potentially fruitful avenues of inquiry into our understanding, and perhaps even treatment, of the condition. Some of the possible legal and ethical issues which may come in tandem with these new endeavours are investigated by considering the hypothetical case at hand.

Finally, a proposal for a fresh look at how we might address the legal and ethical concerns highlighted in this case through an alternative framework to that of Principlism, namely Relational Theory, will be advanced as a more robust methodology which leads to a different resolution of the dilemma at hand.

Chapter One: Defining Psychopathy

> "*It is this unshakable sense of a solid "me" in the midst of this process that is the "self."…When we talk about "no-self", we are pointing to this sense of a solid self in and calling it an illusion. The process of "selfing" is real, the belief that it is somehow a permanent "me" is not.*"

1.0 Chapter One Introduction

"*For a hundred and fifty years, science has known of the psychopath's existence: for at least 110 years, scientists have quarrelled over the definition of this disorder*." (2)

This chapter will address how the term 'psychopathy' has been understood – and often misunderstood - both within and without the clinical community.

1.1 Common Conceptions of Psychopathy

The term 'psychopath' engenders emotive reactions in the minds of many, ranging from fascination to abject fear, and sometimes envy.

Such characters are often portrayed in the media and entertainment business as a class apart from the rest of us, irrational, violent, delusional, cruel, merciless, impulsive, manipulative, and fundamentally irredeemable in nature. It is almost as though psychopathy has become a catch-all term to represent 'bad behaviour' of any sort.

1.2 The Conflation of Psychopathy with Psychosis

Psychopathy and psychosis have often been conflated outside the clinical setting, most likely because both terms have been truncated to 'psycho' such that you have the 'mad' psycho and the

'bad' psycho; the delusional character and the merciless character. For the purposes of high drama, a combination of the two, the mad and the bad (with, of course, a healthy dash of violence) is a well-established fictional construct.

However, while in reality it is possible for one person to be both psychopathic and psychotic, there is no inherent connection or correlation between the two states of being:

"*In contrast with psychotic patients, psychopathic individuals are generally rational, free of delusions, and well oriented to their surroundings, and those who commit crimes are almost always aware that they have done wrong in the eyes of the law, despite their apparent inability to appreciate the moral gravity of their misbehavior*." (3)

Such a wide and varied conception of psychopathy is reflected, albeit in a less extreme form, within the scientific/medical community. There is a lack of consensus as to what the defining characteristics of psychopathy are on a number of levels. This issue will be addressed in the following section.

1.3 **Psychopathy as a Clinical Condition**

The construct of psychopathy in the clinical setting is commonly broken down into primary and secondary psychopathy. The former is characterised by *inherent affective deficits*, is confident and domineering in character, and lacking complex emotions such as fear, anxiety, and guilt. The latter on the other hand is characterised as having *acquired affective dysfunction* as a result of inadequate or destructive socialisation in early childhood. They can be withdrawn, hostile, and suffer high levels of anxiety. (4)

In the event that they participate in violent or destructive acts, the primary psychopath is more likely to be involved in instrumental violence, as opposed to reactive violence. That is, they are

more likely to plan the behaviour *as a means to* the acquisition of a desired end. The secondary psychopath, on the other hand, is more prone to violence as *a reaction to* a perceived threat.

"*Though this disorder [primary psychopathy) is often comorbid with the disruptive behaviour disorders, it is theoretically and probably also epidemiologically a completely different entity*." (4)

Despite very clear and distinguishable differences between the two conditions, they have been placed under the same umbrella of 'psychopathy'. Thus the term, as in the wider public arena, has come to encompass all 'bad' and antisocial behaviour in the clinical setting.

But the original medical definition of the condition put forward by American psychiatrist and pioneer in the field, Hervey Cleckley, was considerably more limited.

1.4 **Cleckley's Conception of Psychopathy**

In 1941 Cleckley, following a large number of interviews with psychiatric patients who displayed specific psychopathic traits and honed down common personality and behavioural features he saw amongst the group. He identified these as callousness, shallow affect, charisma, and superficiality, combined with a significant lack of guilty feelings, fear, anxiety and empathy. Significantly, his definition allowed for, but did not require, the presence of antisocial behaviour such as violence and criminality.

In other words, under Cleckley's criteria, you can possess psychopathic traits, but not necessarily display violent behaviour.

Influential criminologists McCord and McCord, working in the area around the same time as Cleckley, and perhaps significantly, with criminal offenders as opposed to psychiatric patients, placed more emphasis on behaviour rather than personality traits.

1.5 McCord and McCord's Conception of Psychopathy

More emphasis was placed on social maladjustment and aggressive and impulsive behaviour by the McCords, as opposed to Cleckley's emphasis on shallow affect, including lack of anxiety and fear responses, and a dearth of empathy.

They define violent and aggressive behaviours as *features* of the condition, while Cleckley sees such behaviours as (possible) *consequences of features* of the condition. In other words, in the former understanding, violence and aggression are common features of psychopathy. In the latter understanding, violence is frequently displayed – but only as a consequence of a feature, that being a lack of inhibiting factors such as fear and empathy: If you experience little or no sense of guilt or remorse, it is much easier to resort to violence as a means to a desired end; there is simply a lack of compunction to resort to such behaviour.

The violent behaviour of the secondary psychopath is motivated by strong emotions such as anger and fear. The primary psychopath's violence is motivated by a need to acquire/achieve a specific end.

1.6 A More Profound Distinction

But the more profound distinction between the two conditions derives from theories on their aetiology, (as mentioned in section 2.3): In line with the theory of American Psychiatrist and Psychoanalyst Benjamin Karpman early in the twentieth century, primary psychopathy is understood as a *congenital* condition which affects core interpersonal and affective capacities. (5) Secondary psychopathy, on the other hand, is considered to be an emotional response to adverse social conditions through the developmental stages of childhood. It is, in effect, a coping mechanism, an attempt at self-protection in an unsupportive and hostile environment.

"*For secondary psychopaths, an otherwise intact conscience is ''prevented from functioning by the intrusion of an unusually large element of antipathic emotions, most often hostility.*'' (5)

This is in marked contrast to the primary psychopath who, as a consequence of an inherent inability to experience complex emotions such as guilt and remorse, is seen to lack a conscience.

1.6.1 **Empirical Support for this Distinction**

This distinction is empirically supported by numerous studies which suggest that subjects who score highly on Factor 1 (traits of primary psychopaths) of the Hare's Psychopathy Checklist List–Revised 2003 were more likely to demonstrate reduced fear-potentiated startle reactions, whereas those who score highly on Factor 2 (traits of secondary psychopaths) are more likely to have the opposite reaction - increased fear-potentiated startle.[i] (6) That is, fear-stimulation elicits a markedly low emotional response from the former group, while eliciting a markedly high emotional response from the latter group.

In a similar vein, the former group demonstrated lower skin conductance response (that is, a physiological reaction) in the face of fear-stimulation, while the latter group demonstrated significantly higher skin conductance response in the same circumstances. In other words, while secondary psychopaths may not display an emotional reaction, they are in fact experiencing one, while the primary psychopaths really are not experiencing an emotional reaction at all – or, if they are, it is in a shallow and short-lived manner.

These findings are further bolstered by a study of non-offenders which found that in this population also the PCL-R Factor 1 scale related to reduced startle potentiation (indicating hypo-reactivity to emotional stimuli) , whereas the Factor 2 behaviour scale related to increased startle potentiation (indicating hyper-reactivity to emotional stimuli). (7)

Studies have also found that primary psychopaths tend to score higher than the average on emotional intelligence tests, while secondary psychopaths tend to score lower. (8)

Such stark and even conflicting traits suggest that, while the behaviour of the two groups may be similar in many instances, the aetiology of that behaviour is profoundly different. Of course, as in

[i] See Section 2.4 of this paper.

the case with psychosis, while there is no inherent connection between the two conditions, it is still possible for them to be comorbid in the one individual.

Recent advances in neuroimaging, and evolutionary theory are now allowing for the assessment of these conditions from perspectives other than by simply extrapolating from observed behaviour, thus providing us with more nuanced and holistic understandings. (*See section 1.7.2 and 1.7.1*) These greater understandings in turn lead to a need for a reconceptualisation of the construct of psychopathy.

1.7 **A Reconceptualisation**

In essence, primary psychopathy can now be understood as an inherent emotional deficit; whereas secondary psychopathy may be understood as an acquired emotional disturbance. With such significant differences between these two conditions, it may be of benefit to refer to 'psychopathy' and 'sociopathy' as opposed to 'primary' and 'secondary' psychopathy.

This terminology would allow for less confusion regarding the definition of the psychopathic personality. By restricting the definition of the condition to the traits of the 'primary' psychopath, the term would be less open to conflicting interpretations, thus providing the opportunity for more focused research and hence potentially more appropriate interventions.

1.7.1 **Support for a Reconceptualisation**

While this reconceptualisation has not been adopted as a general rule in the clinical setting, it is supported in the literature on the subject: In 1995, on foot of empirical evidence, and in the interests of consistency in terminology, evolutionary psychologist Linda Mealey argues that the above conceptualisation should be adopted universally.

Further support for this classification is evident in findings that, when adopted in this manner, the prevalence of 'psychopathy' is relatively stable across time and cultures, as well as across ethnic,

racial, and social class groups. The prevalence of 'sociopathy', on the other hand, has been shown to fluctuate in tandem with socioeconomic and other environmental conditions:

"*The stability of the prevalence of psychopaths over time and their existence across class lines has led to the virtual dismissal of socio-cultural or developmental causes of psychopathy (but not for sociopathy) by those most seriously engaged in this line of research*." (9)

Likewise, the antisocial personality is largely situation-bound: Experience of a continuously hostile and unsupportive home environment in childhood and adolescence can render behaviour patterns resistant to change. The ASPD condition can be understood as being largely grounded in context-driven sources, with the ensuing long-term effects such as anxiety, depression, and excessive drug-taking, aggravating tendencies towards inappropriate and excessively defensive reactions to life events.

1.7.2 **The Evolutionary Perspective**

From an evolutionary perspective, Mealey hypothesises that traits which induce 'cheating' behaviours are predictably distributed within populations of all social species. However there is small but consistent percentage of the population on the extreme end of the spectrum for whom this behaviour is an 'obligate' strategy, i.e. a genetically determined strategy. This group - on the proviso that it remains a small percentage of the population - have a distinct evolutionary advantage. The particular attributes they possess (and those they do not possess) provide them with opportunities to attain that which allows for their survival and the perpetuation of their genes into future generations. These types of strategies over time lead to individuals who are not only phenotypically different, but also genotypically different, to the rest of the population. The group, in effect, evolves its own taxon of the species, as opposed to being at the extreme end of a spectrum of a type. In a similar manner, while it has not been determined empirically that there

is such a genotype, there is evidence that some of the defining traits of (primary) psychopathy have significant genetic underpinnings. (6)

In the event that Mealey's theory is correct, however, how do we account for the common presence in psychopaths of self-destructive behaviours which often lead to long-term incarceration - amongst many other negative consequences for this type of individual?

This can be explained by subdividing the group into two types, 'successful' and 'unsuccessful' psychopaths.

1.7.3 **Successful and Unsuccessful Psychopaths**

Successful psychopaths are those who operate and function successfully in society, remaining outside the purview of the legal system - sometimes even reaching the upper echelons of society - and those who do not, that is, those who are persistently violent and/or criminal.

It has been posited that intelligent, high-functioning, successful psychopaths gravitate towards positions of power and authority in, amongst others, the business world, the legal and medical professions, political, religious, and other institutional leadership roles. In their book, 'Snakes in Suits: When Psychopaths Go to Work', for example, Paul Babiak and Robert D. Hare state that, while it is estimated that up to 1% of the population are psychopathic, this ratio rises to 4% in the corporate world. (10)

This would suggest that there are roles within societal groups which are conducive to the presence of individuals who possess psychopathic traits. A well-known argument in support of this hypothesis is the case of surgeons: It is suggested that it is of great benefit to the patient to be operated on by somebody who has unusually low levels of anxiety as well as high levels of self-confidence.

But if we accept this understanding of psychopathy as a taxon of its own, persistent over time, there should be specific physiological differences in the brain of the psychopath which correlate with their particular behaviours and personality traits.

Before the 1900s, the assessment of the presence of psychopathic personality traits was restricted to the observation and analysis of behaviours. Since then however, as mentioned in Chapter Two, the advent and rapid development of neuroimaging techniques, have allowed us to examine and compare the brain structures and functionings of individual subjects.

1.7.4 **Physiological Correlates to Psychopathic Personality Traits**

It was been demonstrated that there are indeed specific differences in the brains of subjects who have been diagnosed as psychopathic using Hare's PCL-R assessment tool.

A famous case in point is that of James Fallon, an American Neuroscientist, who in the course of his research, found that he himself had the physiological brain structures commensurate with others diagnosed as psychopathic. In his book on the subject, he examines his life and family history and comes to the conclusion that he does indeed have the personality traits of psychopathy, but that he also had a safe, loving, and supportive childhood, an open future, and an intellectual mind, which allowed him to live a fulfilling and productive life. (11)

1.8 **Chapter One Conclusion**

While many studies have confirmed that there are physiological correlates to psychopathic traits, the research to progress our understanding of such intricate structures of the brain, their interactions with each other, the environment, experiences, and other biological system (such as the endocrinological system), is only at its very infancy.

However, with the rapid development in neurotechnology currently at play, we are heading in a direction that could eventually lead to significant progress in our understanding of that most complex of structures, the human brain.

Such progress could in turn present opportunities to alter our brains in ways that may be of benefit. The following chapter will address some of the ethical dilemmas that such abilities may give rise to; specifically those which arise in the event that we can alter the brain structures of

criminal psychopaths as a means to altering personality traits, and consequently behaviours which are destructive in nature.

The definition of psychopathy used for this inquiry will be that of Mealey: a classification which in effect brings us back to the construct of psychopathy as defined by Hervey Cleckley in the 1940s and Benjamin Karpman in the 1950s.

Chapter Two - A Short History of Psychopathy

2.0 Chapter Two Introduction

In this chapter the history of the classification of psychopathy will be addressed briefly.

An argument for a reclassification of the three 'antisocial disorders,' psychopathy, sociopathy, and antisocial personality disorder (ASPD), will also be put forward for consideration.

2.1 Psychopathy before the Scientific Age

It was only in the Twentieth Century that psychopathy became classified as a medical condition or, more accurately, a disorder of the brain. While there is mention of people possessing the traits we commonly associate with the psychopathic mind, such as callousness and remorselessness, there is little evidence to suggest that it was ever considered to be anything other than one of many personality types.

There are however records of characters as being described as 'lacking' in one form or another. They are seen as lacking empathy or a moral compass.

The opposite can be said of psychotic conditions and states; before the 'medicalisation' of mental states, those demonstrating a perspective on the world that does not correlate with that of the people and culture around them were deemed to be possessed by demons or the like.

Hence we have one group seen as lacking in essential human properties, with the other possessing unwelcome 'nonhuman' properties, but neither perceived as suffering from a *medical condition* that has a corresponding physiological state.

This conception of psychopathy began to change in line with the rise of the scientific age and a new metaphysical understanding of mental conditions in general took hold.

The case of Phineas Gage (1823-1860) was to be instrumental in leading to the charge to reconceptualise mentally dysfunctional states and their aetiology.

2.2 **The Case of Phineas Gage**

In 1848, at the age of twenty-five, while working as a foreman for a railway company in Vermont USA, Gage suffered a catastrophic injury to his brain when an accidental explosion on the line resulted in a tamping rod blasting up, penetrating Gage's face just below the left cheekbone, with the pointed end exiting through the frontal bone. The rod was 3.2 cm in diameter and 1.1 m in length, weighing 6kg.

Astonishingly, Gage survived the injury, went on to recover both physically and cognitively, and was able to lead a relatively productive life for more than eleven years. In 1860 he finally succumbed to the damage to his brain which manifested itself at that time in the form of fatal seizures.

In the aftermath of the accident however, his doctor, John Martyn Harlow, as well as family and friends, claimed that there was a radical shift in Gage's personality following the incident severe enough for it to be said that Gage was "no longer Gage." (12) (p.281)

Reports at the time stated that Gage changed from being an amiable, well-balanced, responsible, and organised character to being one prone to intemperate, socially inappropriate, erratic, and aggressive behaviour.

While there are conflicting accounts of the extent and duration of these newly acquired personality traits, the relevant point in this instance is that a link between behaviour and specific parts of the brain was established.

2.3 **Psychopathy as a Medical Condition**

As psychiatry developed into a branch of scientific medicine, and mental conditions were broken down and classified, psychopathy continued to remain outside the purview of the discipline:

"*Psychopaths have hidden from psychiatry...Well into the eighteenth century, medicine recognized only three broad classes of mental illness: melancholy (depression), psychosis, and delusion, and the psychopath fit into none of these*." (13)(p.359)

Thus the person demonstrating psychopathic traits continued to be seen as lacking in moral character as opposed to suffering from physiological deficits. Perhaps this perception persisted because their cognitive and perceptive abilities remain intact, allowing them to function effectively in the world and appear at face value to be 'normal.'

This understanding remains contentious even today with, for example, the American Diagnostic and Statistical Manual of Mental Disorders (DSM-V) not formally recognising psychopathy as a distinct psychiatric condition, and instead incorporating it into the wider categorisation of Anti-Social Personality Disorder (ASPD).

2.4 **The Specific Characteristics of Psychopathy**

In the Twentieth Century Hervey Checkley, in his seminal book, *The Mask of Insanity*, was to greatly influence our determination of the specific characteristics of psychopathy:

"*The term "mask of sanity" derived from Checkley's belief that a psychopath can appear normal and even engaging, but that the "mask" conceals a mental disorder*." (14)(p.9)

He suggested that the psychopath was not simply a character displaying antisocial behavioural tendencies and a lack of impulse control, as was the common understanding. Psychopaths are, more accurately, domineering, self-serving, manipulative, lacking in empathy, remorse, fear, and even anxiety. Significantly, this new more detailed construct allowed for the inclusion of non-violent and socially functional psychopaths to be included in the category. Conversely, it also

meant that not all people displaying anti-social behaviour and a lack of impulse control are psychopathic in nature.

2.5 A Diagnostic Test for Psychopathy

In the 1970s Canadian professor in criminal psychology, Robert Hare, combining his experience working with incarcerated violent criminals in Vancouver prisons with Cleckley's work, developed a check-list of traits that classified participants as being more or less psychopathic in their behaviours. Named Hare's Psychopathy Checklist (PCL), it was revised (PCL-R) in 1991 and 2003, and has become the gold-standard in diagnostic testing for the condition throughout the world. With a scoring system of 0-40, and those reaching 30 points or more being deemed to be psychopathic, the checklist rests on the assumption that the condition exists on a sliding scale of severity.

The traits were divided into two categories, Factor 1 assessing affective personality traits such as lack of empathy and remorse, and Factor 2 assessing behavioural tendencies such as violence and impulsivity.

Significantly, on foot of developments in the area, PCL-R results have been shown to correlate with neuroimaging findings in recent times.

2.6 Neurological Correlates of Psychopathic Traits

In the 1990s the functional magnetic resonance imaging (fMRI) technique was developed by Kwong et al. (15)(p.5675) By reading oxygen levels in the active brain, this technique allowed for the monitoring and mapping of brain activity while the subject is involved in processing specific information. In the case of psychopaths (as determined by PCL-R results) the subjects were presented with images, videos, sounds, and words that would stimulate the processing of social dilemmas.

In 2007 Kent Kiehl, associate Professor of Psychology and Neuroscience at the University of New Mexico, U.S.A, developed a mobile fMRI machine. This development was significant on a logistical level because it allowed for the assessment of large groups of individuals who had demonstrated high scores in Hare's PCL-R test, namely incarcerated violent criminals.

The data from studies using this technology showed that while there were no discernible *behavioural* differences in the ability of the prison inmates and those of the control group to recognise moral content (such as a picture of a Ku Klux Klan cross-burning), there were significant and consistent *neurological* differences:

"*Compared with non-psychopaths, psychopaths showed decreased activation in the right posterior temporal cortex and increased activation in the amygdala, two areas well known to be associated with moral reasoning*." (16) (p.359)

According to Kiehl, further testing revealed marked deficiencies in the areas of the brain responsible for affective memory and inhibition when stimulated:

"*Putting these results together begins to paint a picture of the psychopathic brain as being markedly deficient in neural areas critical for three aspects of moral judgment: 1) the ability to recognize moral issues; 2) the ability to inhibit a response pending resolution of the moral issue; and 3) the ability to reach a decision about the moral issue. Along with several other researchers, we have demonstrated that each of these tasks recruits areas in the paralimbic system, and that those precise areas are the ones in which psychopaths have markedly reduced neural activity compared with non-psychopaths."*(13)

Kiehl further argues that, because the fMRI results of the subjects accurately correspond with their scores in the PCL-R test, we now know that we have a reliable empirical test that can diagnose psychopathic traits.

2.7 Chapter Two Conclusion

Such arguments have been used for the inclusion of psychopathy as a pathological mental disorder, along with others such as depression and schizophrenia. The syndrome was in effect medicalised, thus sanctioning the development of attempts to 'cure' the condition.

The correlations found between brain structure and behaviour/personality traits have led to revival of support for the possibility of altering said traits by altering the brain directly, a practice known as 'psychosurgery' in the past.

A short history of this treatment will be presented in the following chapter.

Chapter Three – A Short History of Psychosurgery

3.0 Chapter Three Introduction

This chapter will provide a brief telling of attempts at psychosurgery in the past.

3.1 Early Attempts at Psychosurgery

Attempts to cure mental conditions by altering brain structure have had a long, if chequered, history. Evidence suggests that as far back as the Neolithic Age (circa 10,200-3000BC) trephination was being performed – that is a boring of a hole in the skull – in Europe, Asia, African, and the Americas. Analyses of these skulls have established that the subjects survived this procedure, suggesting that it was performed for medical purposes.

3.2 Modern Attempts at Psychosurgery

In the modern scientific age however, the first recorded instance of surgery being performed on the brain was by Swiss psychiatrist Gottlieb Burkhardt in 1891. He performed bilateral cortical excision on six patients manifesting psychotic and violent behaviour with what he claimed were mixed results. (17)

Others soon followed in his footsteps, but it was the research work in neurophysiology of Fulton and Jacobson in 1935 that prompted Portuguese neurologist and inventor of cerebral angiogram, Egas Moniz to attempt prefrontal leucotomies by the injection of absolute alcohol into the area. (18) Fulton and Jacobson performed frontal lobotomies on primates and reported mixed results. (19) They reported that the animal subjects showed less “experimental neurosis” when they failed to perform task successfully. They however also noted that their abilities to perform tasks successfully were diminished. Evidence of numerous negative side-effects such as epilepsy, axial hypertonia, hysterical catalepsy, automutilation, oculomotor palsy, and many others, were recorded. (20)

It would seem that it was the reduction in agitation and anxiety levels reported that Moniz focused on in order to provide justification for performing the first prefrontal leucotomies on human subjects with his colleague Almeida Lima. Following performance of the procedure on twenty institutionalised patients, Moniz reported that there were "worthwhile" outcomes observed, and gave this new treatment the name 'psychosurgery.'

3.3 **The Age of the Lobotomy Technique**

Perhaps because of the dearth of alternative treatment options for those affected by chronic and acute mental illnesses, Moniz's work was seized upon by the medical profession as a means of alleviating the abject suffering they witnessed in the asylum institutions of the time. Either way, despite a lack of scientifically established evidence of its efficacy, the procedure was adopted enthusiastically by the medical communities of the Western world with Moniz even being awarded the Nobel Prize in Medicine and Physiology for this work (along with his invention of cerebral angiography).

In the USA the mantel was taken up by Walter Freeman within months of Moniz's publication of his findings. With fellow-neurosurgeon James Watts he performed the first prefrontal lobotomy which essentially involved the separation or the removal of connections between the frontal lobes and the prefrontal cortex. A specially designed surgical tool, named a leucotome was used for this procedure.

In 1942 Freeman and Watts published their findings based on results of the first two hundred operations they performed. While citing a number of complications - many similar to the symptoms Phineas Gage acquired following his accident - they concluded that overall the procedure was a success.

"*Partial separation of the frontal lobes from the rest of the brain results in reduction of disagreeable self-consciousness, abolition of obsessive thinking, and satisfaction with*

performance, even though the performance is inferior in quality. The emotional nucleus of the psychosis is removed, the "sting" of the disorder, is drawn. Even though the fixed ideas persist and the compulsions continue for a while, the fear that disabled the patient is banished. How much this relief means to the patient suffering from doubts and fears, morbid thoughts, hallucinations and delusions, and compulsive activities, may easily be imagined." (18)(p.12)

The authors in this instance seem to be laying stress on the removal of behaviours indicative of anxiety and distress in their subjects. Certainly it could be argued that, on seeing a previously distressed patient appear calm and relaxed following an intervention, such results would be interpreted as being successful. Furthermore, it is possible that such an interpretation (as in the case of Moniz's work) was arrived at in the absence of any other means of treating such illnesses being available to the medical community at the time. And certainly, on first impression, for the *observer* to see a person relieved of distressing and/or aggressive behaviour it would be reasonable to conclude that their circumstances had improved. This may be an especially tempting interpretation to come to when situated in large institutions where the logistics of managing difficult behaviour, along with the witnessing of so much distress, had to be endured by staff on a daily basis.

As further incentive, Walter Freeman, by all accounts, was a gifted communicator as well as an enthusiastic and persuasive advocate of the treatment. Renowned American neurosurgeon, William German, on reviewing Freeman and Watt's reports, wrote in the Yale Journal of Biology and Medicine that:

"*There is no doubt that the authors have assembled an important body of information concerning frontal-lobe function and have utilized a relatively conservative surgical procedure to the benefit of many of their patients. The book should be of great interest to those working in the fields of*

neurophysiology and psychiatry. It will be of invaluable assistance to those who are responsible for or participating in "shock" or surgical treatment of mental diseases." (21)(p.562)

Between 1939 and 1951, more than 18,000 lobotomies were performed in the USA, and an estimated sixty thousand worldwide between 1936 and 1956. (21)

With Walter Freeman taking up the helm as promoter and expert practioner of the new and exciting procedure, selective reports on success rates were seized upon by the mainstream media and consequently the general public, despite significant and persistent scepticism by many in the general medical community.

"*Demonstrative of the widespread social acceptance of the procedure was the inclusion of a number of public figures amongst patients receiving the procedure, including the actress Frances Farmer, Rose Williams, the sister of Tennessee Williams, and Rosemary Kennedy, the younger sister of John F. Kennedy. Notably, the latter patient, only 23 at the time, was profoundly disabled by the procedure and required institutionalization for the remainder of her life.*" (22)(p.670)

3.4 **The Demise of the Lobotomy as an Effective Treatment**

By the 1950s doubts and concerns began to surface in the psychiatric community and amongst the general public. It became evident that the procedure was being performed in many cases in an unregulated and haphazard manner:

"*The transorbital lobotomy soon became ubiquitous across the landscape of psychiatric care in the United States and many parts of Europe… [T]hey were performed in a variety of contexts, including asylums, veteran's affairs hospitals, academic medical centers, and even in offices and ad-hoc "operating rooms" set up in motel rooms.*" (22)(p.670)

In the public arena disquiet took hold with those witnessing the effects on post-lobotomised subjects for themselves: amongst other effects, chronic apathy, deficits in attention span, inappropriate and disinhibited behaviours, led to the belief that the cure was worse than the disease.

With the anti-establishment ethos of the 1960s and 1970s, the notion that the procedure was being performed without adherence to properly informed consent protocols was being raised.

Resistance and objections gained further traction with the publication of artistic works such as Tennessee Williams' play "Suddenly Last Summer" (1958) which depicted a character who succeeds in having her niece undergo a lobotomy for her own nefarious ends, and Ken Kesey's novel "*One Flew Over the Cuckoo's Nest*" (1962) which told the story of an uncooperative asylum patient who is forced to undergo a number of electroconvulsive shock treatments and finally a lobotomy which renders him near-catatonic.

3.5 **Psychosurgery as a Means of Social Control**

In 1970 two neurosurgeons, Vernon Mark and Frank Ervin, advanced the notion that psychosurgery may in the future become a tool for governments to implement widespread population control via mind control. (23)(170)

Such dystopian projections were shored up by others such as Spanish neuroscientist José Delgado, who famously stopped a charging bull in his tracks by remote electrical stimulation of the bull's motor cortex.

On the back of the zeitgeist of the time, and with emotive terminology such as "psychocivilized" society, interpretations of his writings claimed that he was advocating mass modification of human behaviour through external control of the brain for nefarious purposes.

3.6 **The Fallout**

The fears and outrage expressed at the time led to the establishment of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (the precursor to the Belmont Report), in the USA in 1974.

Contrary to general expectations, the commission determined that psychosurgery could be beneficial in certain circumstances and should not be abolished outright. It also found that there was no evidence to suggest that psychosurgery was used for political ends, or as a means of imposing social control.

These findings were reflected in the reports of two other agencies, the American Psychiatric Association Task Force on Psychosurgery and the Behavior Control Research Group of the Hastings Center. (24)

Furthermore, in his historical analysis of the phenomenon published in 1998, Jack D. Pressman pointed out the importance of the cultural construction of mental illness as 'maladjustment' during that era, as defined by influential psychiatrist of the time, Adolf Meyer (1866-1950). (25)

In this context the clinical and social benefits of the treatment were seen as one and the same. When being deployed as a last resort, therefore, the surgery was seen as allowing for social reintegration – and therefore as a successful correction of the 'maladjustment'.

In other words, however misguided it may have been, the elimination of distressed and/or aggressive behaviour was interpreted as a positive clinical outcome, with the negative outcomes and side effects being overlooked.

Whilst offering this historical context, Pressman acknowledges fully the lack of diagnostic and procedurally defined safeguards, the general lack of regulations, and the subsequent widespread misuse and abuse of the treatment that contributed to the large-scale abandonment and, in some countries, outlawing of the practice.

This nuanced analysis supported the findings of the National Commission which recommended the continuation of experimental efforts *on the proviso that regulatory guidelines and limitations*

are strictly adhered to. These conclusions however, because they ran contrary to common expectations, were largely ignored and the proverbial baby was thrown out with the bathwater:

"*The National Commission's conclusions were a surprise in their day and have become a forgotten footnote in the annals of history. They remain a detail from the past that needs to be recalled, lest we allow distortion of science policy by erroneous historical analogy*." (26)(p.326)

3.7 **The Rise of the Psychopharmacological Solution**

Despite the extensive reporting and well-supported backlash against the procedure, it was in fact the introduction of the antipsychotic drug with the trade name of Largactil (Thorazine in the USA) that was in large part responsible for the near demise of psychosurgery as treatment option.

3.8 **The Resurgence of Psychosurgery and the Birth of Neuroethics**

The ethical and legal issues that arose during the lobotomy era have become relevant again in recent times with the advent of new means of studying and intervening in neural dysfunction, largely made possible by rapidly advancing technology.

This need was recognised in 2002 when the term 'Neuroethics' became a part of common parlance in the academic and scientific arena on foot of a conference held by the Dana Foundation in the USA which was convened to bring together neuroscientists and bioethicists.

This gathering, along with a number of others in the same year, recognised that new technologies and methodologies such as brain imaging and deep brain stimulation (DMS) brought with them an obligation to address the particular ethical and legal implications of this emerging field of scientific inquiry and application.

3.9 **Chapter Three Conclusion**

The abuses and mistakes of the 'lobotomy era' and its aftermath bring into sharp focus the need to identify, respond to, and anticipate the ethical and legal dilemmas that do and may in the future arise from these new instruments of investigation and intervention.

Bearing this in mind, the question here is whether, in the event that we are able to alter the functional capacities of people who display psychopathic traits, is it ethically and legally acceptable to offer such an intervention to convicted criminal offenders as an alternative to incarceration.

Chapter Four: The Ethics of the 'Offer' in this Hypothetical Case

4.0 Chapter Four Introduction

The definition of psychopathy used for this ethical inquiry will be that of Linda Mealey: a classification which in effect brings us back to the construct of psychopathy as defined in the 1940s by Hervey Cleckley and Benjamin Karpman in the 1950's, and even Pinel in the 1900s.[ii] (*See Chapter Three and Four*)

As established in Chapter Three, the history of psychosurgery in the 1950/60s era is not one we would be advised to repeat. Equally, the fast-moving advances in neuroscience and neurotechnology may allow for new and effective treatments for previously intractable conditions.

Bearing this in mind, the developments in neurotechnology in the last two decades are providing tools which can advance our understanding of how the brain works - and has already successfully treated brain disorders with new techniques such a Deep Brain Stimulation (DBS) for (otherwise untreatable) severe depression, with no significant negative side-affects found to date.(28)

However, there are a number of significant ethical considerations to stimulating functionings (in any manner, be it via psychopharmaceuticals, neurofeedback, or psychosurgery, or any other valid method) in the brain of the psychopath, which are unique to that condition. Some of these considerations will be highlighted and addressed in this chapter.

4.1 The Principle of Respect for Autonomy

Of course, in our legal system a person who has reneged on the social contract by breaking the law is deemed to have forfeited the right to respect for autonomy in one aspect at least, in the form of restrictions on their freedom of movement. However, seminal American bioethicists Tom

[ii] Pinel, on his experience of the mental health system he witnessed and worked in: "*"I cannot here avoid giving my most decided sufferage in favour of the moral qualities of maniacs. I have no where met, excepting in romances, with fonder husbands, more affectionate parents, more impassioned ... than in the lunatic asylum, during their intervals of calmness and reason."27. Online-Project P. Philippe Pinel San Francisco, CA, USA: D. A. Wilson; 1998 [Available from: http://www.pinelschool.org/pp.htm.)* (Accessed 11/07/2016)

Beauchamp and James Childress also point out that the forfeiting of this right does not mean that they have lost the right to moral respect, that is, the acknowledgement of and respect for their humanity.[iii] Likewise, it does not entail the loss of their right to bodily integrity.(29) The Principle of Respect for Autonomy is one of the central tenets of ethical medical practice in the Western world today.(29, 30)

Given that there is no current unified understanding of what precisely the term 'autonomy' refers to, in their seminal work, *Principles of Biomedical Ethics*, Beauchamp and Childress, define it as, at the very least, "*…self-rule that is free from both controlling interference by others and limitations that prevent meaningful choice…"* (31) (p.101) The Principle of Respect for Autonomy refers to the moral obligation to respect autonomous agents by acknowledging "*their right to hold views, to make choices, and to take actions based on their values and beliefs*." (31) (p.106)

Of course, in our legal system a person who has reneged on the social contract by breaking the law is deemed to have forfeited the right to respect for autonomy, in one aspect at least, in the form of restrictions on their freedom of movement. However, Beauchamp and Childress also point out that the forfeiting of this right does not mean that they have lost the right to moral respect, that is, the acknowledgement of and respect for their common humanity. They take this one step further and reason that because the prisoner has considerably weakened autonomy over their lives and under the bidding of the powers that be, they can be classified as a 'vulnerable' group, for the same reason as, for example, the elderly and infirm, and children.

4.2 **The Unique Case of Treatment for Psychopathy**

The difference between altering (or 'fixing') our bodies and altering our brains is vast. The idea of altering our brain circuits cuts to the core of how we interpret the very meaning of our existence in the world as we know it, our sense of identity. It concerns our state of mind, our sense of who

[iii] It could be, and is, argued that criminals have in fact forfeited this right also; that they themselves have failed to respect the principle of respect for the autonomy of others (their victims), thus losing the right to receive the same back: The person put *themselves* in the position they now find themselves in, loss of autonomy and the right to be treated with dignity is the price you pay, it is argued. This is a contentious view which will not be addressed in this paper.

we are and what we can do, our sense of personal well-being. It is ultimately something which can determine whether we deem our lives to be worth living – or not.

This consideration applies to psychosurgery for the treatment of any of a number of mental conditions. However, there is a fundamental difference between treating a neurological condition of the patient who *wants* the hoped-for result of the treatment, and somebody who is agreeing to the treatment for an alternative end, namely freedom from incarceration. The incarcerated psychopath is not looking to have negative symptoms removed, but rather is being given the option to have something *added* to her brain functionings (an addition that allows for deeper, more complex emotions to be felt, some of which can often be distressing to experience) in exchange for her freedom from incarceration.

It would be reasonable to surmise this could be a particularly distressing experience for a person who has never experienced such affectivity before. As such, to contemplate performing a procedure which may alter a person's sense of themselves, their interpretation of who they are, and how they understand themselves in relation to the world, calls attention to the need for thorough ethical consideration.

Given then that there are no health-improving needs wished for, as is generally the case with other patients, the incarcerated psychopath's motivation for consenting to the treatment would be reduced to the desire for release from confinement.

This gives rise to a key ethical question: does such an approach meet all the requirements of a valid informed consent? It can be argued that a subject cannot give valid informed consent when refusal to consent will lead to an unwanted outcome: There is an element of coercion underlying the choice being offered which means the autonomy of the person to make the decision may be considered to be compromised, and therefore the consent not given freely.

This ethical stance has been taken in regards to the offering of a lesser sentence for convicted sex offenders - on the condition that they agree to 'chemical castration,' that is, the taking of a pharmaceutical drug that reduces the sexual drive:

"*[T]he doctrine of informed consent requires a knowledgeable and voluntary decision to undergo treatment, yet offering a convicted offender castration as an alternative to a lengthy prison sentence constitutes an inherently coercive practice rendering truly voluntary consent impossible. Thus, castration should be rejected as a condition of probation*."(32)

In other words, the participant would be acquiescing, as opposed to validly consenting, to the procedure.[iv] This principle would also apply in the case at hand, and as such, their consent would have to be considered to be invalid.

4.2.1 **An Obstacle to Informed Consent as the Definitive Deciding Point**

Emotions felt are exclusively subjective; we can surmise and extrapolate the feelings and thoughts of others, and sometimes we get it right, other times we do not.

But we cannot make a summation about a person's emotional state (i.e. know how they feel) unless we have subjectively experienced that exact state ourselves. We may be able to make the association of a particular facial expression with a certain state of mind, but we cannot understand how another feels if we have never experienced that feeling ourselves.

Take the case of seeing-blind-man thought experiment of Irish philosopher and political commentator in the Seventeenth Century, William Molyneux (whose wife was blind). (33) He devised a philosophical thought experiment in which he proposed the following scenario: A person is blind from birth, and then, as an adult, has their sight restored. Two objects are placed in front of the subject, a cube and a sphere. The question then being, would the subject know innately, by now looking *and* touching the objects - and based on his previous experience which was limited to determining shape by touch – which shape was which?

[iv] Chemical castration is currently offered, inter alia, as a *de facto* choice in Belgium, Germany, and the Czech Republic, and may be court-mandated in some cases in Poland and Florida.

Two camps emerged, one which believed that there were innate connections between the senses which would allow for extrapolation from one to the other. That is, our minds could innately connect the sight of the shape to the touch of the shape. The second camp disagreed, they believed that to 'understand' roundness, to know what it is to see it visually, a person must have seen and touched it concurrently before that. The blind person will recognise a ball when blind, but it is only recognisable in the world as they know it, one which renders coherent the world as they experience it, one which cannot rely on the visual sense.

It is now possible to restore certain types of innate blindness with surgery, and Molineux's question has been answered empirically. In 2011, Dr. Pawan Sinha, an American neuroscientist, published the results of experiments which sought to discover the answer to Molineux's question; would those whose sight was enabled for the first time in their lives 'know' what a cube was by seeing it without touching it at the same time. (34) It was found that there was no innate/internal connection between sight and touch, the subjects could not tell which shape was which.

Arguably, the other camp postulated from their own subjective experience: Those of us who have both senses intact, when we are blindfolded and handed a ball, will instantaneously know that it is, for example, a ball, despite not being able to see it. But it is our previous learnt experiences that enable us to make that connection. Those who have not had the opportunity to make this association before will not be able to make it on this first instance. They cannot 'imagine' what it is like to see, they cannot truly 'understand' what they have not experienced.

Another American neuroscientist, Stephen Kosslyn, specialising in the field of vision and mental imagery, found these results unsurprising. In his view, many of the seemingly natural qualities in everyday vision are not innate but are instead learnt through experience. (34)

While we tend to attribute inherent sentient qualities to the objects we observe, in reality we learn what they 'are' within the sealed bubble of our own available senses and learnt experience.

In a similar manner, if you have never experienced the emotions of guilt or love you cannot 'imagine' what they are like to experience. You can recognise their signs and smells, so to speak, but you cannot feel them *emotionally*.

Ted Bundy unintentionally provided a quote to the media on this experience:

"*I didn't know what made people want to be friends. I didn't know what made people attractive to one another. I didn't know what underlay social interactions.*" (35)[v]

What this means then for the true psychopath - who does not, and never has, experienced complex 'social' emotions such as remorse, self-doubt, and even fear, is that they are free of the (subjective) actualities of certain needs and desires experienced by non-psychopathic people.[vi]

But more importantly, in the context of this paper's inquiry, in the event that an incarcerated criminal psychopath gives her consent to have her brain altered so that she does experience 'social' emotions, can such consent be truly informed since the subject does not 'know' what it is she is agreeing to?

Given the above considerations the answer to this question would have to be 'no.'

4.2.2 **The Low-Fear Factor**

Numerous studies conducted have indicated that psychopaths are relatively fearless because they have hypo-arousable autonomic nervous systems (36): Studies suggest that, psychopaths have significantly low electrodermal activity (a physiological reaction to anxiety and/or fear) in the face of impending painful or unpleasant stimuli. (37) According to Walsh and Huei-Hsia Hu:

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v It would seem then that, unpalatable as it may be for some, we cannot in fact walk in the shoes of another, no matter how hard we try, at least not *really*. We can only speculate and postulate, utilise our own subjective experiences, together with our own accumulated and available knowledge, to make a last best guess.

vi Hence the presence of supreme self-confidence and a bloated sense of self-importance; they only have to (because they are only able to) care for themselves and what they need and want.

"*Fearlessness makes it difficult to visualize the negative aspects of impending events, much of which relies on emotional processing. In other words, psychopaths have a tendency to take risks that most of us would rather avoid because of the negative consequences associated with them*." (36)(p.142)

Given then that they do not have the requisite mental faculties required to make a judgement on the consequences of their decisions, it can be surmised that they are not in a position to decide *in an informed manner* whether an alteration of their brain functionings would be in their best interests.

Thus we have another reason why the consent of the individual in this case cannot be considered to be valid, and why the presenting of such an option is ethically unsound in this circumstance.

4.3 **Chapter Four Conclusion**

For the three reasons cited above; the coercive nature of the offer, the inability of the subject to 'know' what she is consenting to, and the subject's inherent lack of the facilities required to make a reasoned judgement on the consequences of consenting to the procedure, it can be concluded rationally that such an offer is without ethical foundation: In such a circumstance, the subject cannot give properly informed consent, and the principle of Respect for Autonomy is not being upheld.

The next chapter will address the legal aspects of this hypothetical case, and consider the rights of the subject as they relate to the public interest at large.

Chapter Five: The Psychopath and the Public Interest - Legal Considerations

5.0 Chapter Five Introduction

Since psychopaths do not experience the need to develop interpersonal relationships and cultivate emotional connection with others, their needs and desires are limited to those driven by the 'primary' emotions such as anger, frustration, excitement, and satisfaction. (36) This may explain the heightened development and expression of these drives which they *do* possess, much in the same way as a blind person can have a heightened sense of hearing in the face of limited senses.[vii]

The social drives, when present, compromise the expression of the more base drives in the non-psychopath. Without them then psychopaths are in a position to concentrate their efforts on the satiation of the limited number of needs they *do* possess.[viii]

A prototypical violent psychopath, as defined in this paper, Ted Bundy stated, tellingly in this context, the following:

"*You learn what you need to kill and take care of the details. It's like changing a tire. The first time you're careful. By the thirtieth time, you can't remember where you left the lug wrench*." (1)

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vii Take the case of Perceptual Navigation Specialist, Daniel Kish, the blind man who could 'see like a bat' has been widely-documented and much-lauded: On losing his sight at thirteen months - and as he developed - his hearing skills became honed to such a degree that he was able to take advantage of this fine skill to devise an alternative means of navigating his world. He can now navigate his surroundings using echo-location in a similar (or perhaps exact) manner to that of bats and dolphin. Kish, D. *How I use sonar to navigate the world.* TedTalks2015 [https://www.ted.com/talks/daniel_kish_how_i_use_sonar_to_navigate_the_world?language=en) (Accessed 15/05/2016)

viii This notion also correlates with another trait associated with psychopathy, the need for stimulation/proneness to boredom. With needs limited to but a few, they have excessive psychic time and energy available to them, and this manifests in the form of a heightened need for stimulation and a propensity towards boredom.

For most people, this is a shocking statement to make. For Bundy this was simply the way he understood the world and what he understood he needed to do to survive in it. As with all of us, it was his particular mental faculties (or rather lack thereof) and lived experiences which determined how he interpreted the world around him. The absence of emotional connection to others meant the above statement simply made logical sense to him. His actions and understanding of the world were coherent with his accumulated experiences and the narrative he had developed (with the faculties he had at his disposal) as a means of developing his self-identity. His nonchalance apparent in the above passage was merely the expression of a person talking from his 'authentic self', in accordance with his own values and beliefs. (See section 5.3 for more on the 'authentic self.')

The motivation for most of us (even secondary psychopaths), apart from the same drive to have our basic needs met, is to do what we need to do in order to ensure our inclusion in a social group. It is emotions such as empathy and guilt which provide this motivation.

Without these social and emotional skills life is substantially more perilous, the individual is exposed to additional dangers - and inconveniences. And, of course, within the confines of the social group, such individuals also pose a threat to the group due to their lack of compunction to follow established mores/rules and respect legal constraints which are devised in the interests of social cohesion and the protection of the rights of all members of the group/society.

Such considerations give rise to a number of questions including, how do we balance the legal rights and welfare of the incarcerated psychopath against the best interests of society as a whole? And can the presentation of an implicitly coercive option to these individuals in the form of a choice between long-term incarceration and brain alteration be legally justified under current international human rights law?

Before addressing these questions, a summary background of relevant international human rights instruments and laws will be provided.

5.1 **A Summary of International Human Rights Laws**

In the case of the European Community and as stated on the website of the European Court of Human Rights (ECtHR);

"*The Convention for the Protection of Human Rights and Fundamental Freedoms, better known as the European Convention on Human Rights, was opened for signature in Rome on 4 November 1950 and came into force in 1953. It was the first instrument to give effect to certain of the rights stated in the Universal Declaration of Human Rights and make them binding. Since its adoption in 1950 the Convention has been amended a number of times and supplemented with many rights in addition to those set forth in the original text.*" (38)

The *Universal Declaration of Human Rights* (UDHR) was the first international document elucidating fundamental and universal human rights. It was instigated on foot of the atrocities perpetrated during the Nazi era, and the knowledge accrued during the Nuremberg Trials, and was adopted by the United Nations General Assembly December 10th 1948 for the purposes of espousing and promoting the universal protection of fundamental human rights. (39)[ix]

This seminal document led to, inter alia, a number of international covenants, culminating in the establishment of the *International Bill of Human Rights* which incorporates:

"*- The Universal Declaration of Human Rights*

- The International Covenant on Economic, Social and Cultural Rights

– The International Covenant on Civil and Political Rights

- The Optional Protocol to the International Covenant on Civil and Political Rights

- The Second Optional Protocol to the International Covenant on Civil and Political Rights, aiming at the abolition of the death penalty" (40)

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ix It was these same events which catapulted the field of bioethics into the mainstream academic and medical/scientific fields of endeavour.

On September 30th, 1995, the final protocol above was acceded to and the bill was adopted by the United Nations (UN) in 1996, representing:

"…a milestone in the history of human rights, a veritable Magna Carta marking mankind's arrival at a vitally important phase: the conscious acquisition of human dignity and worth." (40)(p.10)

But before this, in 1990, the United Nations General Assembly proclaimed and adopted a resolution protecting the rights of prisoners: *Basic Principles for the Treatment of Prisoners.* (41)

5.1.1 **The Primacy of the Principle of Respect for Dignity**

- The first Article of the UDHR begins with the following statement:

  "*All human beings are born free and equal in dignity and rights.*" (39)(p.1)

- The first statement of the *International Bill of Human Rights* reiterates the above. (40)(p.1)

- The first statement in the *Basic Principles for the Treatment of Prisoners* document is the following:

  "*All prisoners shall be treated with the respect due to their inherent dignity and value as human beings.*" (41) (p.1)

As such, we have an unequivocal and reiterated declaration of the *inherent dignity* of every human being by virtue of the very fact that they are a human being.

The concept of 'dignity' however is not elucidated in these any documents, and is, in general, a notoriously difficult one to define. (42)

The following section will address this concern.

5.2 **The Right to Dignity**

While the term is not explicitly defined in any of these documents, its meaning is implied to a considerable degree by the context in which it is used, for example:

- Dignity is *"inherent … in all members of the human family*." (39)(Preamble)
- All human being are "*free and equal in dignity and rights.*" (39)(Article 1)
- These rights "*derive from the inherent dignity of the human person.*" (43, 44)

Hence it is understood as an intrinsic value integral to every human being by virtue of their humanity - similar to Kant's contention that all human beings are *subjects* as opposed to *objects* (with the corollary that we have a duty to act in accordance with this 'categorical imperative.') (45)

Hence we have, in this age of human rights, an international legal obligation to treat all members of the human race with dignity, regardless of all other considerations.

In the context of this paper then, the question is, would we be denying the dignity of the incarcerated psychopath - and therefore in contravention to international law – by presenting them with the aforementioned implicitly coercive option between incarceration and direct brain intervention? Before answering this question, however, the intimate link between dignity and respect for personal autonomy will be examined.

5.3 **Respect for Autonomy and the Authentic Self as Conflicting Fundamental Rights**

The fundamental right to be treated with dignity incorporates the right to respect for autonomy (where that is possible). As we know, the autonomy of the incarcerated individual is compromised to the extent that their freedom of movement and association is restricted by the State. In this instance we will presume that, for the State, incarceration is imposed in the interests of public safety, and also (where applicable) for the purposes of rehabilitation – as opposed to that of retribution.

As mentioned in the introduction to this paper, the idea of interfering directly with the brain raises legitimate concerns in regards to the consequences it may have for a person's sense-of-self:

"*We might be concerned about people erasing their "authentic" identity and becoming, literally, "someone else.""*" (46)(p.164)

The vast majority (if not all) of us have a sense of who we are, a sense that we have a core-self which gives us our identity as a unique person in the world, and the expression and acknowledgement of this 'authentic' self is integral to our psychological wellbeing. Equally, however, we are, as persons, ever-changing; every event and experience we encounter alters our minds and hence our brains, and this change is as constant as the process of change our physical selves are going through every moment of our lives, with or without our conscious awareness. It is reasonable to suggest, for example, that long-term incarceration will 'change' a person (and therefore their brain) in one way or another.[x]

Our sense-of-self is not therefore some fixed ontological entity which we seek to protect when we reject notions of altering brain function or structure, rather it is our *felt* authenticity which we fear for, as defined by Dutch philosopher Felicitas Kraemer. (47)

It is this sense-of-self (as understood by the person themselves) which the State is legally obliged to acknowledge and protect in the name of dignity. In the same vein, the State is also obligated to promote, in all ways practicable, the autonomy of its members by maximising their capacity to make autonomous decisions. This can be achieved by, inter alia, providing education and the ensuring the availability of relevant information.

In the next section, bearing the above in mind, we will return to the question of how the autonomy and dignity of the incarcerated psychopath can be respected and promoted to the greatest extent possible and, as such, in compliance with International Human Rights Laws.

5.3.1 **The Promotion of Respect for Autonomy**

In chapter five, it was argued that it can be construed as morally unacceptable to present the offer of a choice between brain alteration and long-term incarceration on the grounds that there is a significant element of coercion in such an offer. If this line of reasoning is followed then, the

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[x] Whether these changes are deemed to be positive or negative or both is contextual, and is not a consideration for this paper.

individual should not be given the option, and incarceration should be imposed. Such a path of action, of course, compromises the autonomy of the individual to substantial agree, but can be justified on the grounds that the State has a legal duty to protect its members from harm in all ways practicable.

However, the State is still obligated to acknowledge the inherent dignity of the prisoner, and to maximise their autonomy to the greatest extent possible, under the constraints imposed by the above stated duties to society as a whole.[xi] The State in this instance cannot put a gun to the head, so to speak, and say, 'your freedom or your authentic self, your choice.' This would clearly be a threat and therefore a denial of dignity and respect for autonomy, and hence in violation of international law. If the only way, under the principlism framework to respect dignity and maximise her (already constrained) autonomy is to act by *not* presenting the alternative solution to the problem, namely brain alteration. It is the 'constraining' autonomy to protect and promote the autonomy of whose life circumstances are controlled by the decider – who knows better what's best for the other because of her position of power, i.e. a prison guard, correctional institution, and/or the State itself' argument. This has been a contention of Neil Levy is Deputy Research Director of the Oxford Centre for Neuroethics; constrain autonomy to 'capabilitise' (or 're-capabilitise') the person whose autonomy has been compromised, so they are 'able' to make 'valid' decisions on the best way forward for them:[xii] If you respect the dignity, deny her autonomy by *not* providing the opportunity to give an inherently inauthentic decision – because it from a 'coerced' (hence invalid as determined under principlism.) consent. It can be seen as adherence to the principles of beneficence/non-maleficence in action; the deciding officer is happy she made the morally and medically 'right' decision for the subject, the subject has her autonomy protected as far as is practicable – albeit unfortunately from a maximum-security correctional facility for the next thirty to forty years. (48)

[xi] For the same reasons, the State is entitled to quarantine a person who is carrying a highly infectious disease.

Of course we know what prison is like, what that means, we've all seen the movies, the television documentaries on the real and heightened horrors. But it has to be better than having your brain zapped and becoming a walking incontinent compliant automaton, surely. That answer probably depends of the person, their history, who in their life they can trust and not trust, and their lived life in sum up to that point, and so on.

5.3.2 **Further Considerations on Autonomy**

On the other hand, is it the State's roll to decide that the choice should not be offered because it is considered to be a coercive one? Many choices are severely constrained, and coercive for a variety of different reasons, but it does not necessarily follow that they should not be offered. And does (or should) the 'offerer' have the right to be the one who decide whether the choice should be given or not?

All choices entail both losses and gains to one degree or another. There would be no choice to make if this were not the case. The issue, more to the point, is whether the person whose life it affects directly has the right to the opportunity to weigh those potential losses and gains and make their own decision accordingly.

Take the hypothetical case of a terminally ill person with a brain tumour. The doctor tells them that they can choose to have surgery, and have a good chance of survival. However the removal of the offending tissue will damage their brain structure and will negatively affect their cognitive abilities.

This is clearly a horrendous and profoundly constrained choice, but it does not follow that the doctor is in a moral or legal position to deny the patient the right make that choice themselves. Likewise, on principle, it can be argued that the State does not have the right to deny the prisoner the same right in their particular circumstance.

It could be argued that the analogy here is not commensurate with the choice being offered to the incarcerated psychopath since the doctor has no control over the circumstances – she cannot

remove the tumour without the undesired side-effects. The State does, on the other hand, have the power to release the prisoner from incarceration (just as the man has the power to take the gun away from your head). This is not strictly accurate however; the State is not, in actuality, in a position to do this. It is obliged to act in the interests of the safety of its members, as elucidated in the previous section.

Hence, it can be argued that, just as the doctor has a duty to respect the autonomy of her patient and present the all choices available for the patient to decide for themselves, so the State has a duty, for the same reasons, to offer all choices available to the prisoner, limited and constrained as they may be. To do otherwise could be construed as taking paternalistic stance; an anathema to respect for the person's right to autonomy, and a denial of the dignity of the person who, by rights, is entitled to make their own life-choices, and is consequently a violation of international Human Rights laws.

Maybe there is another valid reason to deny the opportunity to make this choice in this specific case: As mentioned earlier in this chapter, to alter the personality of a person has its own unique and profound considerations which must be taken into account. The person does not 'know' what they are choosing until after they have made the choice and experienced the outcome of that choice; the consent is not sufficiently informed. (See chapter five)

This contention will be examined in the next section.

5.4 **Sufficiently Informed Consent and Sufficient Investigation**

It has been documented that people who have taken antidepressants for the alleviation to depression have experienced a positive affect and considered the treatment to have allowed them to become their own authentic selves, that having being thwarted by the condition previously. Others have had quite a different experience in that they feel a lift in their mood, but have the sense that the medication is in some sense blocking their ability to be their authentic

selves; they would rather live with the condition and feel they are in touch with their true selves as they understand that to be. (49)

In both these instances, it would be fair and respectful of the dignity and autonomy of the person to allow them to either continue or cease treatment in accordance with their own self-determined best interests. (50)

Likewise, in the case being examined in this paper, the incarcerated psychopath may, on having their brain altered embrace their new empathetic selves, or they might recoil from such a state of being and wish to return to their carefree selves, even if this means incarceration.[xiii]

Neither they, nor those whose in authority they are under, can know whether the outcome will be welcomed or not. However, this lack of knowledge of what the outcome will be does not necessarily mitigate against providing the option to undertake the procedure. We all make life-changing decisions without full awareness of the real affects even when we know that there can be no going back. Becoming a parent is a prime example of this phenomenon.

As in the case of constrained options in the previous section then, in the interests of complying with the word and spirit of international Human Rights Laws, it can be argued that the State is obligated to allow and provide for the opportunity for the individual to decide for themselves which course of action they believe it best for them to take.

This remains the case regardless of the motivations behind the decision made: The person may agree to the procedure for a multitude of different reason; they may be motivated to become true active members of a social group, for example, or they may be motivated by freedom from incarceration the decision will bring. Regardless, it is not for the State to decide on what grounds the decision is made: As Beauchamp and Childress have established, respect for autonomy entails respect for the making of 'bad' choices too – which may in some instances mean 'inauthentic' choices:

[xiii] It is established in this hypothetical case that the procedure and outcome have been determined to be safe and effective enough for any patient in similar circumstances.

Take a hypothetical case outside of medical and justice and State jurisdiction (in Western society at least). A thirty four year old man is very committed to maintaining a fit and visibly fit body. He reiterates on a consistent basic that he has maintained an almost identical schedule for the work required to sustain his high level of physical fitness because he in motivated to have the type of body and lifestyle which maximised the chances of a long and healthy life.

In reality, he works out in the gym three hours a day, six days a week, with a long cycle or run on the seventh day because he has an abiding feeling of inadequacy, and has persuaded himself that if he has a demonstrably fit and toned body, he will have a reason for some, or even one, person to want and love him. In reality, his motivation for his dedication to his gruelling and time-consuming routine is other than what both he and those around him believe. He just loves it, it makes him feel strong and healthy and virile – and maybe attractive (the latter motivation is not articulated).

The man's insecurity has in actual fact been the motivation for his now fourteen-year-long commitment to his routine – a routine which illustrates an unrealised life.

These activities are performed for reasons other than those he claimed (or told himself), he is not in fact doing what he is doing for the reason he says – or believes himself. And, somewhat tragically, the huge amount of accumulated time taking part in this endeavour has denied him the opportunity to be in situations in which he could have being interacting, communicating, and socialising with others: A circumstance which would have been considerably more conducive to coming into contact with people who might actually enjoy his company and his presence in their lives.

So what do the people who do actually care about him, and see 'the error of his ways,' the ones who see his life passing by him while he works to acquire the thing which he thinks will get him where he wants to go – despite fourteen years of evidence to the contrary. Do they say, 'look, your strategy is not working, your drive to physical 'perfection' is ironically blocking your opportunities to live and thrive. You need to stop, change some of your ways, go talk to

somebody – so that you can come up a different direction to take, one which may be more conducive to you getting what you clearly so achingly yearn for.'

Or do we hint feebly and then talk to others about his crazy self-destructive behaviour and mutually conclude that it's his life, his choice, his loss?

Most of us (who grew up in Western culture at least), would say, 'yes, tragically, it *is* his life, *his* choice; it's a matter of respect for his autonomy.'

I would not argue with this reasoning, based as it is on a fundamental and necessary principle. However, maybe there is another approach which might open the person's options and stimulate reflection and a change of heart (or maybe not). Intimate protracted communication might inspire the beginnings of a change of perception and, with that, a re-evaluation of long-established and no-longer effective strategies for a chance for the 'good life.'

This man is not living or deciding in a self-authentic manner, and it has compromised his autonomy in a profound way. But in the end, we relinquish responsibility, and submit to the overriding and absolute principle of respect for autonomy of every human being:

'It's his life, what can *we* do?'

Or do we try to find ways to help, and try to enable the person themselves (if they are not wholly resistant, which is of course their prerogative), into a place where they might 'safely' reassess their ways of living their lives, their values, and their desires, and their authentic selves?

The latter strategy does not in any way compromise the autonomy of the person, but it does open a door (or doors) to real and potentially richer ways of living and perceiving their world and the possibilities available to them.

This strategy is demonstrative of a more expansive, nuanced, approach to honouring the principle of respect for autonomy and dignity – and respect for the authentic self of the person in question.

It also illustrates a framework within which we could re-examine the hypothetical case that is being scrutinised in this paper.

5.5 **An Expanded Ethical Framework**

Based on discussions in this chapter, I contend that it is the State's legal obligation under International Human Rights Law, to present all possible opportunities at rehabilitation - as a vehicle for the realisation and further promotion of the person's autonomy – including the option to undergo the aforementioned procedure in lieu of freedom from incarceration. This is of course on the proviso that said procedure has been established as relatively safe, in a similar manner to all medical interventions.

Currently practiced theories on autonomy and the doctrine of informed consent are prefaced on a narrow interpretation of Kantian understanding of the 'self' and as a separate and primarily self-interested fixed and individual subjects living in the midst of like-beings. The conception leads to the principle of respect for the autonomy of the person – as an equal 'other' for which the 'right' to decide, free from outside interference, is necessary for 'true' consent.

This paper offers a more nuanced and, I would argue, a more accurate, understanding of the Kantian model of self, one which calls for a more expansive framing of the 'self.' The 'Relational' framework has been formulated for these purposes, inter alia, in what is now known as Relational Theory, which conceptualises that:[xiv]

"*…a relational self emerges from and is continuously shaped by the context of multiple relationships with other individuals and institutions – some of which can promote flourishing and some of which can oppress*."

5.6 **Chapter Five Conclusion**

What is moral is not always legal and vice versa. Provision of choice, and compliance with an interpretation of principlism as elucidated in this chapter leads to the decision/outcome determined at the conclusion of the chapter.

[xiv] See the writings of Angus Dawson (http://sydney.edu.au/medicine/velim/people/index.php) [Accessed 11/07/2016)

However, immoral but it can be interpreted as legal and hence legally obligated by Human Rights Law as it stands today:

"*…it is important to see that law and ethics are different things. Clearly the two can be related, but there is no reason to see them as coterminous: the law can be immoral and the ethical thing to do can be illegal.*" (51)(p.222)

The law is a blunt, precedent-directed, and adversarial instrument designed for conflict resolution. Bioethics (ethical and philosophical investigation) is (or should be) a forward-looking, contextual one: This is the way it is to be done before, so this is the way we must do (or not do) it this time, as opposed to, 'What is the problem, what is the context, what *can* be done in this case'? What is the best possible resolution we can come up with through dialogue and contemplation?

The choice here is between decision-making by adherence to the previously established, or heuristic consideration from within the contemporary context: In other words, the only possible way to proceed, as deemed by outside experts, or the least worst way to proceed, as determined by the actual stakeholders:

"*[T]he law is very definitely not the place to start if we are considering what we <u>ought</u> to do, as it can be a rather crude and conservative instrument…it looks to precedent as a means both to conceptualize matters and to seek normative inspiration for what (in a legal sense) ought to happen.*" (51)(p.222)

Angus Dawson, Professor of Bioethics and Director Centre of Values, Ethics and the Law in Medicine, University of Sidney Australia (VELiM), who supports a similar version of this emerging

methodology, is not suggesting a wholesale dismissal of the laws and precedents accumulated in the last fifty years in this area.[xv]

That we must look to the past for guidance is incontrovertible. We can, if nothing else, be thankful that this principle was seized upon, articulated, agreed upon, and codified on an almost universal level. The opportunity was seized upon by a shell-shocked international community on witnessing the grotesque events which occurred (and were allowed to occur) in the 1930/40s.

"*…contemporary medical ethics is…increasingly conducted in an unthinking way. Writers seem reluctant to ask fundamental questions about the topics they choose to address, the methods they use, or the theoretical positions they advocate. This is where the dogmas lie, and why medical ethics (and, in turn, bioethics) can be thought of as currently little more than an ideology.*" (51)(220)

A theory such as Relational Theory may provide a framework that would reconcile these seemingly contradictory conclusions (ethics and law chapters).

This alternative framework, grounded in Relational Theory, and what it may mean for the hypothetical case of the incarcerated psychopath with a dilemma (or not), will be examined in the next chapter.

[xv] While lauding the conceptualisation of the problem and suggested alternative method of inquiry within Relational Theory, Dawson is of the opinion that the Relational model somewhat too modest, that this theory, as currently articulated is also too much in awe of the autonomy principle and its importance in decision-making medical dilemmas: *"I remain sceptical about the idea of 'relational autonomy', see C. Mackenzie & N. Soljar, as it is too tempting to read this approach as a request for a mere modification to how we think of autonomy, but still leaving it at the centre of medical ethics (and hence bioethics). I think we need a more radical approach than this suggests."*

Chapter Six: Autonomy and Consent in a Relational Framework

6.0 Chapter Six Introduction

As expounded in chapter four, we are social beings inherently – even psychopaths, whether they are aware of it or not.[xvi]

Within the Relational Framework, to be a social being is not simply a logistical and efficient way of living and surviving and perpetuating our genetic selves through generations. Our social way of being is where our sense-of-self is seated, our identities are formed and exist from and though the relationships we have with others and the cultural structures we live in and with. Hence the self is in a constant state of flux and adjustment within our lived experience, be that with people and/or the cultural spaces we interact within. And this is a symbiotic relationship; A influences B who influences C who influences D who influences B who influences A, and so on. A network of 'effectors' ever-changing each other and themselves in constant fluid motion – both psychically and psychically.

6.1 The Relational Framework

In the words of Jocelyn Downie, Canadian Professor in Law and Medicine, within the Relational Framework:

- We are creatures and creators of our social context.
- We are beings in and of our social context.
- The self exists in and through relationships.
- Selves are both individuated and integrated.
- I am because you are (*ubuntu*) and a person is a person through persons (*umuntu ngumuntu ngabantu*).

[xvi] For the psychopath the only relational connection they *recognise* they have with others is in terms of acquisition of goods and power.

- Instead of Descartes' "I think therefore I am", a twenty-first century of the expression could be "I am networked therefore I am."

And similarly:

"*Relational theory…is grounded in a shared core belief that the object/subject of attention should be understood in relation to others and as being in relation to others*." (52)(p.195)

The atrocities perpetrated in the infamous era of the 1930s/40s gave birth to international human rights awareness, acceptance, and law, which in turn led to the regulation of medical research and practice methodologies prefaced on respect for the dignity of every human being, and the establishment of the discipline of Medical Ethics and Bioethics.

6.2 **Universal Human Rights Law**

With American politician, diplomat, and activist, Eleanor Roosevelt taking the helm, large swaths of the world's national governments gathered under the umbrella of the UN. The members waded through varying perspectives towards mutually-agreed upon basic moral and legal precepts and acceptable declarations, with promises to follow the spirit and intentions of the fundamental human rights articulated.

The Declaration of Helsinki (DoH) (adopted in 1964) was one of the first of these declarations, codifying a set of ethical principles relevant to human experimentation practices and codes of conduct developed for the medical community by the World Medical Association (WMA).

The many national signatories together positioned and committed themselves to honour the universal principles elucidated, by integrating into national and international, legal, government, and medical/scientific structures and institutions. Courts of justice such as the European Court of Human Rights (ECtHR), a court for citizens of all national members of the Council of Europe were established with the mandate to provide remedy for violations of those laws and legal instruments devised to secure the following rights:

• *the right to life,*

• *the right to a fair hearing,*

• *the right to respect for private and family life,*

• *freedom of expression,*

• *freedom of thought, conscience and religion and,*

• *the protection of property. The Convention prohibits in particular:*

• *torture and inhuman or degrading treatment or punishment,*

• *slavery and forced labour,*

• *death penalty,*

• *arbitrary and unlawful detention,*

• *discrimination in the enjoyment of the rights and freedoms set out in the Convention.*

Pertinent to our present concerns, the instruments the HoD stimulated (and continues to stimulate) enormous volumes of literature on this seemingly ever-expanding area of endeavour. This phenomenon is perhaps demonstrative of the need for consideration and contemplation in these life-affecting areas of human endeavour. Publications of analyses, guidelines, codes of conduct, records of implementations in the form of case studies etc. became de rigueur, and a whole new field of work and expertise for countless numbers of formally educated citizens emerged - and rapidly evolved into a complex area of how-to-do-it-right for the frontline workers and policy makers/implementers alike.

6.3 The Role of Medical Ethics Today

It would be unwise to dismiss the findings of this discipline (given that it emerged from the stark and game-changing witness accounts in Nuremberg) because it is not always adequate, in the cold light of every-day practice.

That it is not sufficient does not mean that it is not necessary (or helpful), it just means it is not sufficient. As science opens doors to new possibilities and possible horrors such like we have never seen before; genetic manipulation (CRISPr gene technology), brain-changers like DMS (the new psychosurgery?), and, inter alia, physical and mental enhancement methodologies clearly on the horizon, fears and concerns have given us to pause to stop, wonder, and worry: Where are we heading, will the machines usurp and take over, condemning us to servitude or even outright annihilation while they assume control of our world? Scenes from the film Gattaca flood our frightened collective mind.

The discipline of medical ethics is still in its infancy, and as with all philosophical endeavours, it must grow, develop, and work in tandem with ever-changing understandings and paradigms. If it does not, knowledge becomes atrophied, and is eventually rendered ineffective and outmoded, and hence potentially detrimental.

The goal is not to lay down the law and say 'no', it is to provide tools and methodologies in pursuit of the best possible outcome. This does not have to be done by positing mutual exclusive principles in adversarial positions to battle it out for supremacy and victory, rather it is the gathering of all relevant material for a dialectic interaction for the purposes of coming to be best possible outcome

"*If the question 'are advance directives a good idea?' is considered, it tends to be immediately answered with: 'of course, because they provide a means of respecting patient autonomy'. Such a response tends to ignore the empirical and normative literature on the problems with such directives. (53) Or to give another example: if we ask, 'Do we always need to get informed consent before a medical intervention?' the question is immediately answered with: 'Of course, because we must respect patient autonomy'. However, such a view often just ignores the empirical literature relating to problems in gaining consent from people, as well as those situations where, for methodological reasons, it may not be appropriate to seek consent. Too often the response to*

concerns about the role afforded to autonomy in medical ethics, is just repetition of its (alleged) primary value. Both examples raise the issue that despite the ubiquity of the assumption about the importance of autonomy, it is often unclear what underlies this thought. First, there is a problem related to the nature of the moral claim being made. Is the idea that autonomy should always take precedence over all other values and principles? …[T]oo often the assumption is made that autonomy simply trumps everything else. …despite the ubiquity of the assumption about the importance of autonomy, it is often unclear what underlies this thought…often this assumption won't even be defended, it will be implicit in the argument or just stated as though it were unquestionably true." (53)(p.23)

Which is not to say that it is not true; to maximise capacity with, inter alia, relevant information understood by the subject who is unconstrained (non-coerced/free) to make a decision somewhere high up in the principles resting in the clouds above. What it is saying is that agreed-upon principles should be part of a multifaceted contextualised space where dynamic communication provides a framework for dilemma resolution:

"When a justification is provided, it is often poor and derived from second hand sources. For example, by far the most quoted paragraph is one from Mill's On Liberty. (54)[xvii] *The devotion to this single paragraph in medical ethics is truly staggering. Never has so much rested on so little. The paragraph is plucked from the text, ignoring the fact that the essay as a whole defends inter alia, various scenarios for interfering with people's liberty for non-harm-to-others reasons…In addition, and presumably for some reasons of 'balance', we often get a similar garbled and*

[xvii] Mill articulated his meaning as follows: "*The object of this Essay is to assert one very simple principle, as entitled to govern absolutely the dealings of society with the individual in the way of compulsion and control, whether the means used be physical force in the form of legal penalties, or the moral coercion of public opinion. That principle is, that the sole end for which mankind are warranted, individually or collectively, in interfering with the liberty of action of any of their number, is self-protection. That the only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others*..." J. S. Mill. (1859) *On Liberty* 54. Mill JSBc, 1999. www.bartleby.com/130/. On Liberty. UK London: Longman Roberts & Green, 1869; 69.

simplified summary of Kant's account of autonomy, despite the fact that his views are strictly incompatible with those attributed to Mill. Kant's interest is in rational reasons, with a clear focus on responsibility for one's actions. It is a wilful misreading to see his writings to see his principles as supporting the freedom to indulge yourself in anything you fancy - as long as nobody else gets hurt."

6.4 Under the Relational Framework

Under this framework, extenuating factors and circumstances are within the scope of consideration; information considered as possibly pertinent to the final outcome is examined for relevance. For example, in the case of our hypothetical psychopath, including the findings by some that in the vast majority of instances detention is ineffective, financially exorbitant, detrimental to the subject and society both, and is in practice, at best, pointless, should be included when considering the dilemma. (55) Martha Nussbaum, an eminent philosopher has spoken publicly on foot of evidence of significant rights abuses in an Australian juvenile detention centre:

"*There is a failure to think about what detention is, what it is for, what we hope to get out of it. It's not just taking time away from somebody's normal life, but it's also emptying time of meaning, of emotional connection, of substance.*" (56)

Taking such information into account may lead to the conclusion that offering brain alteration as an alternative to long-term incarceration is ethically acceptable, despite the fact that the principle of respect for autonomy unconstrained by external influences cannot be adhered to.

Conclusion

As elucidated in chapter one, it is my contention that now is a good time to clarify for all concerned what we all mean by the terms 'psychopathy,' sociopathy,' and antisocial-personality-disorder. And that this could be achieved by establishing, as best we can at this time, the aetiologies of these conditions, including the genetic, environmental, neurological, evolutionary, historical, and situational factors of subjects when assessing their condition and the person's demonstrable 'symptoms.'

Such an endeavour could set us on the road to more accurate and reliable data, which would naturally lead to new and exciting treatments and better understandings of the needs of vulnerable people in the healthcare and justice systems of our societies, today and in the coming decades.

Calls for such approaches have recently been instigated by evolutionary psychologists and neurologists alike - if not the clinical or administrative powers that be. (See chapter one)

It is, I believe, incumbent on us to ask, 'does and should respect for principlism outweigh and therefore trump all other considerations of context in any given case - including the history, present circumstances, and perspective of the only significantly affected stakeholder involved in the case?'

I am of the opinion that we are duty-bound to ask, consider, discuss, and reach some kind of consensus on how we might reassess our methodologies and ways-of-practice, revive this nobly-intentioned discipline in the interests of its potentially very important role in our endeavours, in an effort to raise the standards of practice and care in our healthcare systems.

We cannot turn our back on advances in neuroscience and neuroimaging (along with biotechnology) because they remind us of atrocities of the past. Rather, we need to embrace advances in our knowledge and technologies, while also remaining vigilant to the possibilities of

abuse and misuse they may give rise to. This would best be achieved by working with practitioners, patients, and all other stakeholders to devise robust ethical and legal frameworks.

Medical Ethics and Law are - and should be - pivotal considerations in the universal endeavour to advance healthcare standards; their role is to be the gate-keepers of adherence to fundamental principles and best-practice methodologies in all medical endeavours.

I advocate for all stakeholders to resist the temptation to 'pre-catastrophise' an ultimately unknown and unknowable future, and settle with endeavouring to make things better now and as we continue to develop. And also to consider new and unchartered ethical and legal dilemmas – while being mindful to avoid adding layers upon layers of previously established rules and regulations.

As we continue to career head-first into the great unknown future of science, within the every-evolving nature of human existence and understanding, we are obligated to move with the changes we are living in and though. We are duty-bound to commit to utilising all new and potentially enabling tools to advance our healthcare systems and methodologies, on the proviso that we do so in a safe and respectful manner which adheres to the basic principle of respect for the inherent dignity of all persons.

By working within the Relational Theory framework, consideration of the role of authenticity and context are included, along with that of respect for autonomy of the individual.

Under this more expansive and nuanced ethical framework then, as opposed to that of Principlism, it can be said that it is ethically acceptable to present our hypothetical subject with the option of having her brain 'fixed' as an alternative to long-term incarceration.

References

1. The U.S. Government USDoJ. Federal Bureau of Investigation: FBI Records - The Vault USA2016 [Available from: https://vault.fbi.gov/Ted%20Bundy%20/Ted%20Bundy%20Part%201%20of%202/view.

2. Atiq EH. How Folk Beliefs about Free Will Influence Sentencing. New Criminal Law Review: An International and Interdisciplinary Journal. 2013;16(3):449-93.

3. Skeem JL, Polaschek DL, Patrick CJ, Lilienfeld SO. Psychopathic Personality: Bridging the Gap Between Scientific Evidence and Public Policy. Psychol Sci Public Interest. 2011;12(3):98.

4. Soderstrom H. Psychopathy as a disorder of empathy. Eur Child Adolesc Psychiatry. 2003;12(5):249-52.

5. Karpman B. On the need of separating psychopathy into two distinct clinical types: the symptomatic and the idiopathic. Journal of Criminal Psychopathology. 1941.

6. Viding E, Blair RJR, Moffitt TE, Plomin R. Evidence for substantial genetic risk for psychopathy in 7-year-olds. Journal of Child Psychology and Psychiatry. 2005;46(6):592-7.

7. Vanman EJ, Mejia VY, Dawson ME, Schell AM, Raine A. Modification of the startle reflex in a community sample: do one or two dimensions of psychopathy underlie emotional processing? Personality and Individual Differences. 2003;35(8):2007-21.

8. Vidal S, Skeem J, Camp J. Emotional intelligence: painting different paths for low-anxious and high-anxious psychopathic variants. Law Hum Behav. 2010;34(2):150-63.

9. Mealey L. The sociobiology of sociopathy: An integrated evolutionary model. Behavioral and Brain sciences. 1995;18(03):523-41.

10. Gardner J, Williams C. Responsible research and innovation: A manifesto for empirical ethics? Clin Ethics. 2015;10(1-2):5-12.

11. Glannon W. Intervening in the psychopath's brain. (1573-0980 (Electronic)).

12. Harlow JM. Passage of an iron rod through the head. 1848. Journal of neuropsychiatry and clinical neurosciences. 1999;11(2):281-3.

13. Kiehl KA, Hoffman MB. THE CRIMINAL PSYCHOPATH: HISTORY, NEUROSCIENCE, TREATMENT, AND ECONOMICS. (0897-1277 (Print)).

14. Meloy RJ. *The Psychopathic Mind: Origins, Dynamics, and Treatment*. USA: JASON ARONSON Inc; 1992.

15. Kwong KK, Belliveau JW, Chesler DA, Goldberg IE, Weisskoff RM, Poncelet BP, et al. Dynamic magnetic resonance imaging of human brain activity during primary sensory stimulation. Proceedings of the National Academy of Sciences. 1992;89(12):5675-9.

16. Kiehl KA, Hoffman MB. The Criminal Psychopath: History, Neuroscience, Treatment, and Economics. Jurimetrics. 2011;51:355-97.

17. Stone JL. Dr. Gottlieb Burckhardt the Pioneer of Psychosurgery. Journal of the History of the Neurosciences. 2001;10(1):79-92.

18. Moniz E. Prefrontal leucotomy in the treatment of mental disorders. American Journal of Psychiatry. 1937;93(6):1379-85.

19. Allan CL, Topiwala A, Ebmeier KP, Semple D, Steele D. Biological Treatment of Mood Disorders. The Wiley-Blackwell Handbook of Mood Disorders, Second Edition.143-72.

20. Waltregny A. Regarding the experimental neurophysiological basis of psychosurgery. Personality and Neurosurgery: Springer; 1988. p. 129-37.

21. German WJ. Psychosurgery. Intelligence, Emotion and Social Behavior Following Prefrontal Lobotomy for Mental Disorders. The Yale journal of biology and medicine. 1942;14(5):561.

22. Robison RA, Taghva A, Liu CY, Apuzzo MLJ. Surgery of the Mind, Mood, and Conscious State: An Idea in Evolution. World Neurosurgery. 2013;80(3–4):S2-S26.

23. M.H. V, Ervin FR. Violence and the brain. 1st ed. New York,: Medical Dept.; 1970. xiv, 170 p. p.

24. Blatte H. State prisons and the use of behavior control. Hastings Center Report. 1974;4(4):11-.

25. JPressman JD. Last Resort - Psychosurgery and the Limits of Medicine. San Francisco, USA: University of California; 2002 2002.

26. Fins JJ. Constructing an ethical stereotaxy for severe brain injury: balancing risks, benefits and access. Nature Reviews Neuroscience. 2003;4(4):323-7.

27. Online-Project P. Philippe Pinel
San Francisco, CA, USA: D. A. Wilson; 1998 [Available from: http://www.pinelschool.org/pp.htm.

28. Ryder JG, Holtzheimer PE. Deep Brain Stimulation for Depression: An Update. Current Behavioral Neuroscience Reports. 2016;3(2):102-8.

29. Association WM. World Medical Association Medical Ethics Manual 2015 [Available from: http://www.wma.net/en/30publications/30ethicsmanual/pdf/ethics_manual_en.pdf.

30. Council IM. *GUIDE TO PROFESSIONAL CONDUCT AND ETHICS FOR REGISTERED MEDICAL PRACTITIONERS* Dublin, Ireland2009 [7th:[Available from: https://www.medicalcouncil.ie/News-and-Publications/Publications/Professional-Conduct-Ethics/Guide-to-Professional-Conduct-and-Behaviour-for-Registered-Medical-Practitioners-pdf.pdf.

31. Beauchamp TLC, J.F. *Principles of Biomedical Ethics*. Seventh ed. Oxford, UK: Oxford University Press; 2013.

32. Vanderzyl KA. Castration as an alternative to incarceration: An impotent approach to the punishment of sex offenders. N Ill UL Rev. 1994;15:107.

33. Degenaar M, Lokhorst, Gert-Jan. Molyneux's Problem USA: Stanford Encyclopedia of Philosophy; 2014 [cited 2016 20/07/2016). Spring 2014:[Available from: http://plato.stanford.edu/archives/spr2014/entries/molyneux-problem/.

34. House P. *WHAT PEOPLE CURED OF BLINDNESS SEE*2014 26/06/2016. Available from: http://www.newyorker.com/tech/elements/people-cured-blindness-see.

35. Some of Ted Bundy's notorious quotes [cited 2016 06/07/2016). Available from: http://crimelibrary.tumblr.com/post/16042970803/some-of-ted-bundys-notorious-quotes.

36. Walsh A, Wu HH. Differentiating antisocial personality disorder, psychopathy, and sociopathy: Evolutionary, genetic, neurological, and sociological considerations. Criminal Justice Studies. 2008;21(2):135-52.

37. Patrick CJ. Deconstructing psychopathy. Psychological Inquiry. 1997;8(3):244-51.

38. Europe Co. European Convention on Human Rights - Official Texts Strasbourg, France [Available from: http://www.echr.coe.int/Pages/home.aspx?p=basictexts&c=#n1359128122487_pointer.

39. *Universal Declaration of Human Rights* (adopted 10 December 1948) UNGA Res 217 A(III), (1948).

40. *The International Bill of Human Rights* (June 1996) No. 2 (Rev.1), (1996).

41. *Basic Principles for the Treatment of Prisoners* (adopted 28 March 1991) A/RES/45/111, (1990).

42. Andorno R, editor What is the role of'human nature'and'human dignity'in our biotechnological age? Amsterdam Law Forum; 2011.

43. *International Covenant on Civil and Political Rights,* 16 December 1966, United Nations, Treaty Series, vol. 999, (1966).

44. *International Covenant on Economic, Social and Cultural Rights*, 16 December 1966, United Nations, Treaty Series, vol. 993, (1966).

45. Britannica E. *Categorical Imperative*. Encyclopedia Britannica: 2016 Encyclopedia Britannica Inc.

46. Greely H. Direct brain interventions to "treat" disfavored human behaviors: Ethical and social issues. Clinical pharmacology and therapeutics. 2012;91(2):163.

47. Kraemer F. Authenticity anyone? The enhancement of emotions via neuro-psychopharmacology. Neuroethics. 2011;4(1):51-64.

48. Levy N. Forced to be free? Increasing patient autonomy by constraining it. Journal of Medical Ethics. 2012.

49. EGUCHI S. Do mood-enhancement threaten our authenticity?: Comparing pharmacological mood-enhancement and CBT. 2015.

50. Dworkin R. A matter of principle: OUP Oxford; 1985.

51. Dawson A. The future of bioethics: three dogmas and a cup of hemlock. Bioethics. 2010;24(5):218-25.

52. Downie J, Lewellyn J. Being Relational: Reflections on Relational Theory and Health Law and Policy: University of British Columbia Press; 2011.

53. Dawson A, Wrigley A. A dead proposal: Levi and Green on advance directives. The American Journal of Bioethics. 2010;10(4):23-4.

54. Mill JSBc, 1999. www.bartleby.com/130/. On Liberty. UK London: Longman Roberts & Green, 1869; 69.

55. Equality DoJa. Irish Prison Service Ireland: Government of Ireland; 2016 [Available from: http://www.irishprisons.ie/wp-content/uploads/documents_pdf/12232-Irish-Prison-Service-AnnualReport2015-v7-2.pdf.

56. Stephens S A, W. Is there something fundamentally wrong with detention? Australia2016 [Available from: http://www.abc.net.au/radionational/programs/theminefield/waleed-aly-martha-nussbaum-ethics-of-detention/7669746.

Bibliography

International Covenant on Civil and Political Rights, 16 December 1966, United Nations, Treaty Series, vol. 999, (1966).

International Covenant on Economic, Social and Cultural Rights, 16 December 1966, United Nations, Treaty Series, vol. 993, (1966).

Universal Declaration of Human Rights (adopted 10 December 1948) UNGA Res 217 A(III), (1948).

Basic Principles for the Treatment of Prisoners (adopted 28 March 1991) A/RES/45/111, (1990).

The International Bill of Human Rights (June 1996) No. 2 (Rev.1), (1996).

Association AP. Diagnostic and statistical manual of mental disorders (5th ed.). Arlington, VA, USA: American Psychiatric Publishing; 2013.

Association WM. World Medical Association Medical Ethics Manual 2015 [Available from: http://www.wma.net/en/30publications/30ethicsmanual/pdf/ethics_manual_en.pdf.

Prevention CfDCa. U.S. Public Health Service Syphilis Study at Tuskegee USA

U.S. Department of Health & Human Services 2016 [updated 19/02/2016. Available from: http://www.cdc.gov/tuskegee/timeline.htm.

The U.S. Government USDoJ. Federal Bureau of Investigation: FBI Records - The Vault USA2016 [Available from: https://vault.fbi.gov/Ted%20Bundy%20/Ted%20Bundy%20Part%201%20of%202/view.

Anderson J. Disputing Autonomy: Second-Order Desires and the Dynamics of Ascribing Autonomy. SATS: Northern European Journal of Philosophy. 2008;9(1):7-26.

Andorno R, editor What is the role of 'human nature' and 'human dignity' in our biotechnological age? Amsterdam Law Forum; 2011.

Atiq EH. How Folk Beliefs about Free Will Influence Sentencing. New Criminal Law Review: An International and Interdisciplinary Journal. 2013;16(3):449-93.

Babiak P HR. Snakes in suits: When psychopaths go to work. Snakes in suits: When psychopaths go to work. New York, NY: HarperCollins Publishing Inc.; 2006.

Balfe M. Why did US healthcare professionals become involved in torture during the War on Terror? Journal of bioethical inquiry. 2016:1-12.

Bare RL, Hopko DR, Armento ME. The relation of psychopathic characteristics and anxiety in noncriminals: Physiological and cognitive responses to guided imagery. Journal of Psychopathology and Behavioral Assessment. 2004;26(4):225-32.

Benning SD, Patrick CJ, Hicks BM, Blonigen DM, Krueger RF. Factor structure of the psychopathic personality inventory: validity and implications for clinical assessment. Psychological assessment. 2003;15(3):340.

Benning SD, Patrick CJ, Iacono WG. Psychopathy, startle blink modulation, and electrodermal reactivity in twin men. Psychophysiology. 2005;42(6):753-62.

Blair RJR. Neurobiological basis of psychopathy. The British Journal of Psychiatry. 2003;182(1):5-7.

Blair RJR. The amygdala and ventromedial prefrontal cortex: functional contributions and dysfunction in psychopathy. Philosophical Transactions of the Royal Society B: Biological Sciences. 2008;363(1503):2557-65.

Beauchamp, T.L. Childresss J.F. *Principles of Biomedical Ethics*. Seventh ed. Oxford, UK: Oxford University Press; 2013

Blatte H. State prisons and the use of behavior control. Hastings Center Report. 1974;4(4):11-.

Borthwick A, Holman C, Kennard D, McFetridge M, Messruther K, Wilkes J. The relevance of moral treatment to contemporary mental health care. Journal of Mental Health. 2001;10(4):427-39 13p.

Bottalico B, Bruni T. Post traumatic stress disorder, neuroscience, and the law. International Journal of Law and Psychiatry. 2012;35(2):112-20.

Britannica E. *Categorical Imperative*. Encyclopedia Britannica: 2016 Encyclopedia Britannica Inc.

Carter S. Could Moral Enhancement Interventions be Medically Indicated? Health Care Analysis. 2016:1-16.

Casper ST. History and neuroscience: an integrative legacy. Isis. 2014;105(1):123-32.

Claydon L. Are there lessons to be learned from a more scientific approach to mental condition defences? International Journal of Law and Psychiatry. 2012;35(2):88-98.

Cleckley H. The Mask of Insanity. New York, NY: Plume (first published January 1st 1955); 1982.

Council IM. *GUIDE TO PROFESSIONAL CONDUCT AND ETHICS FOR REGISTERED MEDICAL PRACTITIONERS* Dublin, Ireland2009 [7th:[Available from: https://www.medicalcouncil.ie/News-and-Publications/Publications/Professional-Conduct-Ethics/Guide-to-Professional-Conduct-and-Behaviour-for-Registered-Medical-Practitioners-pdf.pdf.

Crego C, Widiger TA. Psychopathy, DSM-5, and a caution. Personality Disorders: Theory, Research, and Treatment. 2014;5(4):335.

Dawson A. The future of bioethics: three dogmas and a cup of hemlock. Bioethics. 2010;24(5):218-25.

Dawson A, Verweij M. The steward of the Millian state. Public Health Ethics. 2008;1(3):193-5.

Dawson A, Wrigley A. A dead proposal: Levi and Green on advance directives. The American Journal of Bioethics. 2010;10(4):23-4.

Degenaar M, Lokhorst, Gert-Jan. Molyneux's Problem USA: Stanford Encyclopedia of Philosophy; 2014 [cited 2016 20/07/2016). Spring 2014:[Available from: http://plato.stanford.edu/archives/spr2014/entries/molyneux-problem/.

Delgado JMRg. Physical control of the mind; toward a psychocivilized society. 1st ed. New York,: Harper & Row; 1969. xxi, 280 p. p.

Donnelly J. The incidence of psychosurgery in the United States, 1971–1973. The American journal of psychiatry. 1978.

Downie J, Lewellyn J. Being Relational: Reflections on Relational Theory and Health Law and Policy: University of British Columbia Press; 2011.

Dworkin R. A matter of principle: OUP Oxford; 1985.

Ebert JP, Wegner DM. Mistaking randomness for free will. Consciousness and Cognition. 2011;20(3):965-71.

EGUCHI S. Do mood-enhancement threaten our authenticity?: Comparing pharmacological mood-enhancement and CBT. 2015.
Eijkholt M, Anderson JA, Illes J. Picturing neuroscience research through a human rights lens: Imaging first-episode schizophrenic treatment-naive individuals. International Journal of Law and Psychiatry. 2012;35(2):146-52.
Ent MR, Baumeister RF. Embodied free will beliefs: some effects of physical states on metaphysical opinions. Conscious Cogn. 2014;27:147-54.
Equality DoJa. Irish Prison Service Ireland: Government of Ireland; 2016 [Available from: http://www.irishprisons.ie/wp-content/uploads/documents_pdf/12232-Irish-Prison-Service-AnnualReport2015-v7-2.pdf.
Europe Co. European Convention on Human Rights - Official Texts Strasbourg, France [Available from: http://www.echr.coe.int/Pages/home.aspx?p=basictexts&c=#n1359128122487_pointer.
Fallon J. The Psychopath Within: A Neuroscientist's Personal Journey into the Dark Side of the Brain New York, NY: Penguin Group USA; 2013.
Farah MJ. Emerging ethical issues in neuroscience. Nat Neurosci. 2002;5(11):1123-9.
Feldman G, Baumeister RF, Wong KFE. Free will is about choosing: The link between choice and the belief in free will. Journal of Experimental Social Psychology. 2014;55:239-45.
Feltz A, Cova F. Moral responsibility and free will: A meta-analysis. Conscious Cogn. 2014;30:234-46.
Fins JJ. Constructing an ethical stereotaxy for severe brain injury: balancing risks, benefits and access. Nature Reviews Neuroscience. 2003;4(4):323-7.
Fischer JM, Ravizza M. Responsibility and Control: A Theory of Moral Responsibility: Cambridge University Press; 1998. 459-66 p.
Focquaert F. Mandatory neurotechnological treatment: ethical issues. Theoretical Medicine and Bioethics. 2014;35(1):59-72.
Freeman W, Watts JW, Hunt T. Psychosurgery: Intelligence, emotion, and social behavior following prefrontal lobotomy for mental disorders. London, England: Baillière, Tindall & Cox; 1942. xii, 337 p.
Gao Y, Raine A. Successful and unsuccessful psychopaths: a neurobiological model. (1099-0798 (Electronic)).
Gardner J, Williams C. Responsible research and innovation: A manifesto for empirical ethics? Clin Ethics. 2015;10(1-2):5-12.
Georgiev G. INTEGRATED APPROACH TO STRATEGIC MANAGEMENT OF HUMAN RESOURCES–RESPONSIBILITIES AT THE NATIONAL LEVEL. Association Scientific and Applied Research. 2015;7:62.
German WJ. Psychosurgery. Intelligence, Emotion and Social Behavior Following Prefrontal Lobotomy for Mental Disorders. The Yale journal of biology and medicine. 1942;14(5):561.
Gillespie SM, McCleery JP, Oberman LM. Spontaneous versus deliberate vicarious representations: different routes to empathy in psychopathy and autism. Brain. 2014;137(4):e272-e.55. Gkotsi GM, Gasser J. Neuroscience in forensic psychiatry: From responsibility to dangerousness. Ethical and legal implications of using neuroscience for dangerousness assessments. International Journal of Law and Psychiatry. 2016;46:58-67.

Gkotsi GM, Moulin V, Gasser J. [Neuroscience in the Courtroom: From responsibility to dangerousness, ethical issues raised by the new French law). Encephale. 2015;41(5):385-93.
Glannon W. Intervening in the psychopath's brain. (1573-0980 (Electronic)).
Glenn AL, Koleva S, Iyer R, Graham J, Ditto PH. Moral identity in psychopathy. Judgment and Decision Making. 2010;5(7):497.
Glenn AL, Raine A. Psychopathy and instrumental aggression: Evolutionary, neurobiological, and legal perspectives. International Journal of Law and Psychiatry. 2009;32(4):253-8.
Greely H. Direct brain interventions to “treat” disfavored human behaviors: Ethical and social issues. Clinical pharmacology and therapeutics. 2012;91(2):163.
Gregory S, ffytche D, Simmons A, Kumari V, Howard M, Hodgins S, et al. The antisocial brain: psychopathy matters. Arch Gen Psychiatry. 2012;69(9):962-72.
Guggenbuhl-Craig A. [Results with group psychotherapy). Psychol Prax. 1956(20):1-96.
Guggenbuhl-Craig A. [Power as a danger in the helper). Psychol Prax. 1971;45:1-105.
Guggenbuhl-Craig A. Reality and mythology of child sexual abuse. J Anal Psychol. 1995;40(1):63-75.
Gullhaugen AS, Nøttestad JA. Looking for the Hannibal behind the cannibal: Current status of case research. International journal of offender therapy and comparative criminology. 2010.
Hall JR, Benning SD. The “successful” psychopath. In: Patrick CJ, editor. Handbook of psychopathy. New York, NY: The Guilford Press (first published 2005); 2007. p. 459-78.
Harlow JM. Passage of an iron rod through the head. 1848. Journal of neuropsychiatry and clinical neurosciences. 1999;11(2):281-3.
Heinrichs J-H. The promises and perils of non-invasive brain stimulation. International Journal of Law and Psychiatry. 2012;35(2):121-9.
Helen S. Mayberg MD. Deep Brain Stimulation for Severe Depression: An Interview with Helen Mayberg, M.D. In: Patoine B, editor. 505 Fifth Avenue, 6th floor, New York, NY 10017: The Dana Foundation.
House P. WHAT PEOPLE CURED OF BLINDNESS SEE 2014 26/06/2016. Available from: http://www.newyorker.com/tech/elements/people-cured-blindness-see.
Jennings B. Public health and liberty: beyond the Millian paradigm. Public Health Ethics. 2009;2(2):123-34.
Pressman JD. Last Resort - Psychosurgery and the Limits of Medicine. San Francisco, USA: University of California; 2002 2002.
Karpman B. The myth of the psychopathic personality. (0002-953X (Print)).
Karpman B. On the need of separating psychopathy into two distinct clinical types: the symptomatic and the idiopathic. Journal of Criminal Psychopathology. 1941.
Kiehl KA, Hoffman MB. The Criminal Psychopath: History, Neuroscience, Treatment, and Economics. Jurimetrics. 2011;51:355-97.
Koch C. Looks Can Deceive: Why Perception and Reality Don't Always Match Up: Nature Publishing Group; 2013 [cited 2016 July). Available from: http://www.scientificamerican.com/article/looks-can-deceive/#.
Koenigs M. The role of prefrontal cortex in psychopathy. (0334-1763 (Print)).

Kraemer F. Authenticity anyone? The enhancement of emotions via neuro-psychopharmacology. Neuroethics. 2011;4(1):51-64.
Kwong KK, Belliveau JW, Chesler DA, Goldberg IE, Weisskoff RM, Poncelet BP, et al. Dynamic magnetic resonance imaging of human brain activity during primary sensory stimulation. Proceedings of the National Academy of Sciences. 1992;89(12):5675-9.
Levy N. Forced to be free? Increasing patient autonomy by constraining it. Journal of Medical Ethics. 2012.
M.H. V, Ervin FR. Violence and the brain. 1st ed. New York,: Medical Dept.; 1970. xiv, 170 p. p.
Mathews DJ. Deep brain stimulation, personal identity and policy. (1369-1627 (Electronic)).
McCord W McCord J. The psychopath: An essay on the criminal mind. Oxford EDVNxp. The psychopath: An essay on the criminal mind. United Kingdom: Oxford, England: D. Van Nostrand (1964); 1964.
Mealey L. The sociobiology of sociopathy: An integrated evolutionary model. Behavioral and Brain sciences. 1995;18(03):523-41.
Meloy RJ. The Psychopathic Mind: Origins, Dynamics, and Treatment: Jason Aronson, Inc.; 1977 07/07/1977.
Mill JSBc, 1999. www.bartleby.com/130/. On Liberty. UK London: Longman Roberts & Green, 1869; 69.
Moniz E. Prefrontal leucotomy in the treatment of mental disorders. American Journal of Psychiatry. 1937;93(6):1379-85.
Monroe AE, Dillon KD, Malle BF. Bringing free will down to Earth: people's psychological concept of free will and its role in moral judgment. Conscious Cogn. 2014;27:100-8.
Nahmias E, Shepard J, Reuter S. It's OK if 'my brain made me do it': people's intuitions about free will and neuroscientific prediction. Cognition. 2014;133(2):502-16.
Ogloff JR. Psychopathy/antisocial personality disorder conundrum. Australian and New Zealand Journal of Psychiatry. 2006;40(6-7):519-28.
Online-Project P. Philippe Pinel
San Francisco, CA, USA: D. A. Wilson; 1998 [Available from: http://www.pinelschool.org/pp.htm.
Organization WH. The ICD-10 Classification of Mental and Behavioural Disorders: Diagnostic Criteria for Research. Geneva. Geneva: World Health Organization, 1993; 1993.
Patrick CJ. Deconstructing psychopathy. Psychological Inquiry. 1997;8(3):244-51.
Patrick CJ, Bradley MM, Lang PJ. Emotion in the criminal psychopath: startle reflex modulation. Journal of abnormal psychology. 1993;102(1):82.
Patrick CJ, Cuthbert BN, Lang PJ. Emotion in the criminal psychopath: fear image processing. Journal of abnormal psychology. 1994;103(3):523.
Penney S. Impulse control and criminal responsibility: Lessons from neuroscience. International Journal of Law and Psychiatry. 2012;35(2):99-103.
Prichard JC. A treatise on insanity and other disorders affecting the mind. London, England: Sherwood, Gilbert, and Piper; 1835. 498 p.

Proyer RT, Flisch R Fau - Tschupp S, Tschupp S Fau - Platt T, Platt T Fau - Ruch W, Ruch W. How does psychopathy relate to humor and laughter? Dispositions toward ridicule and being laughed at, the sense of humor, and psychopathic personality traits. (1873-6386 (Electronic)).

Rachul C, Zarzeczny A. The rise of neuroskepticism. International Journal of Law and Psychiatry. 2012;35(2):77-81.

Robison RA, Taghva A, Liu CY, Apuzzo ML. Surgery of the mind, mood, and conscious state: an idea in evolution. World neurosurgery. 2013;80(3):S2-S26.

Robison RA, Taghva A, Liu CY, Apuzzo MLJ. Surgery of the Mind, Mood, and Conscious State: An Idea in Evolution. World Neurosurgery. 2013;80(3–4):S2-S26.

Roskies A. Neuroscientific challenges to free will and responsibility. Trends in Cognitive Sciences.10(9):419-23.

Roskies A. Neuroscientific challenges to free will and responsibility. Trends Cogn Sci. 2006;10(9):419-23.

Roskies AL. How does the neuroscience of decision making bear on our understanding of moral responsibility and free will? Current Opinion in Neurobiology. 2012;22(6):1022-6.

Ryder JG, Holtzheimer PE. Deep Brain Stimulation for Depression: An Update. Current Behavioral Neuroscience Reports. 2016;3(2):102-8.

Schmitz-Luhn B, Katzenmeier C, Woopen C. Law and ethics of deep brain stimulation. International Journal of Law and Psychiatry. 2012;35(2):130-6.

Shaw E. Direct Brain Interventions and Responsibility Enhancement. Criminal Law and Philosophy. 2014;8(1):1-20.

Shaw E. The Use of Brain Interventions in Offender Rehabilitation Programs: Should It Be Mandatory, Voluntary, or Prohibited? In: Clausen J, Levy N, editors. Handbook of Neuroethics. Dordrecht: Springer Netherlands; 2015. p. 1381-98.

Shepherd J. Free will and consciousness: experimental studies. Conscious Cogn. 2012;21(2):915-27.

Skeem JL, Polaschek DL, Patrick CJ, Lilienfeld SO. Psychopathic Personality: Bridging the Gap Between Scientific Evidence and Public Policy. Psychol Sci Public Interest. 2011;12(3):98.

Soderstrom H. Psychopathy as a disorder of empathy. Eur Child Adolesc Psychiatry. 2003;12(5):249-52.

Sokol DK. The “four quadrants” approach to clinical ethics case analysis; an application and review. Journal of Medical Ethics. 2008;34(7):513-6.

Stephens S A, W. Is there something fundamentally wrong with detention? Australia2016 [Available from: http://www.abc.net.au/radionational/programs/theminefield/waleed-aly-martha-nussbaum-ethics-of-detention/7669746.

Stone JL. Dr. Gottlieb Burckhardt the Pioneer of Psychosurgery. Journal of the History of the Neurosciences. 2001;10(1):79-92.

Sutton SK, Vitale JE, Newman JP. Emotion among women with psychopathy during picture perception. Journal of abnormal psychology. 2002;111(4):610.

Thompson D, Ramos C, Willett J. Psychopathy: clinical features, developmental basis and therapeutic challenges. Journal of clinical pharmacy and therapeutics. 2014;39(5):485-95.

Toole CJ. Medical diagnosis of legal culpability: The impact of early psychiatric testimony in the 19th century English criminal trial. International Journal of Law and Psychiatry. 2012;35(2):82-7.
Vanderzyl KA. Castration as an alternative to incarceration: An impotent approach to the punishment of sex offenders. N Ill UL Rev. 1994;15:107.
Vanman EJ, Mejia VY, Dawson ME, Schell AM, Raine A. Modification of the startle reflex in a community sample: do one or two dimensions of psychopathy underlie emotional processing? Personality and Individual Differences. 2003;35(8):2007-21.
Vidal S, Skeem J, Camp J. Emotional intelligence: painting different paths for low-anxious and high-anxious psychopathic variants. Law Hum Behav. 2010;34(2):150-63.
Viding E, Blair RJR, Moffitt TE, Plomin R. Evidence for substantial genetic risk for psychopathy in 7-year-olds. Journal of Child Psychology and Psychiatry. 2005;46(6):592-7.
Walsh A, Wu HH. Differentiating antisocial personality disorder, psychopathy, and sociopathy: Evolutionary, genetic, neurological, and sociological considerations. Criminal Justice Studies. 2008;21(2):135-52.
Waltregny A. Regarding the experimental neurophysiological basis of psychosurgery. Personality and Neurosurgery: Springer; 1988. p. 129-37.
Weber S, Habel U Fau - Amunts K, Amunts K Fau - Schneider F, Schneider F. Structural brain abnormalities in psychopaths-a review. (1099-0798 (Electronic)).
Weisberg DS, Keil FC, Goodstein J, Rawson E, Gray JR. The Seductive Allure of Neuroscience Explanations. Journal of cognitive neuroscience. 2008;20(3):470-7.
Yang Y, Raine A. Prefrontal structural and functional brain imaging findings in antisocial, violent, and psychopathic individuals: A meta-analysis. Psychiatry Research: Neuroimaging.174(2):81-8.
Yang Y, Raine A Fau - Narr KL, Narr Kl Fau - Colletti P, Colletti P Fau - Toga AW, Toga AW. Localization of deformations within the amygdala in individuals with psychopathy. (1538-3636 (Electronic)).
Zarzeczny A, Caulfield T. Legal liability and research ethics boards: The case of neuroimaging and incidental findings. International Journal of Law and Psychiatry. 2012;35(2):137-45.